Progressive Architecture

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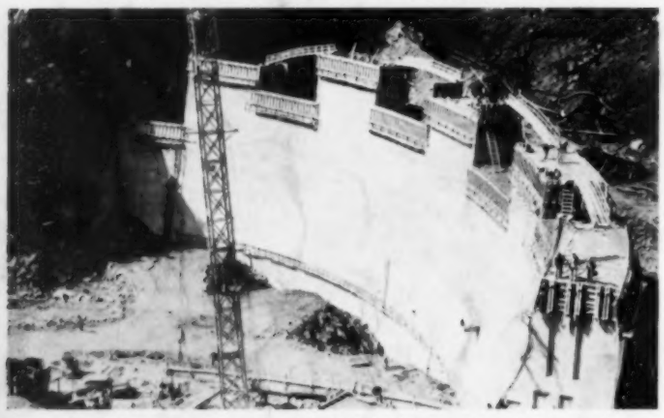
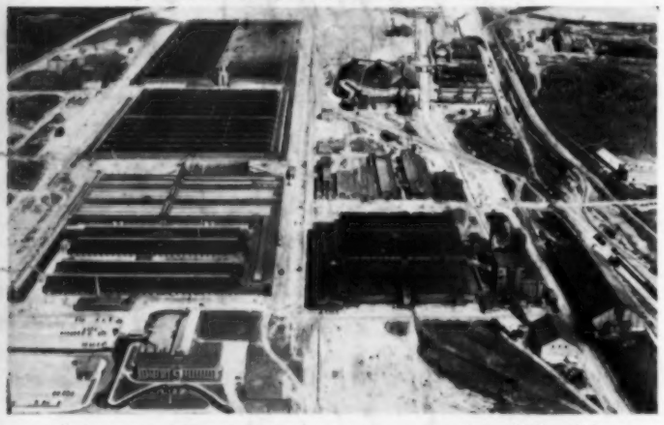
FEBRUARY 1949

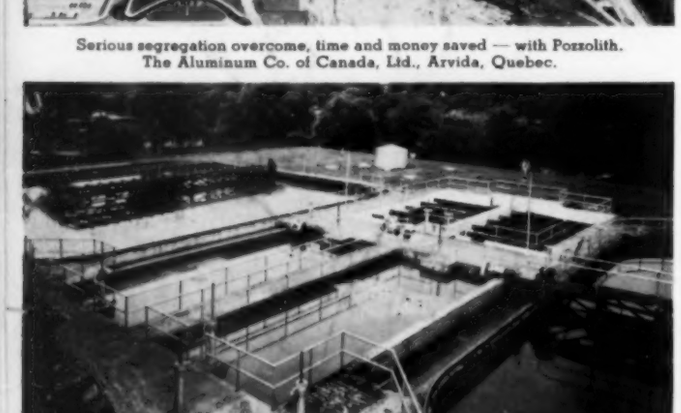
Pozzolith gave pumped concrete increased workability, easy placeability, good cohesiveness. Milwaukee Sewage Disposal Plant.



Pozzolith increased strength, minimized shrinkage and cracks, increased pour 200 cu. yds. per day. Matilija Dam, Ojai, Calif.



Serious segregation overcome, time and money saved — with Pozzolith. The Aluminum Co. of Canada, Ltd., Arvida, Quebec.



Pozzolith produced good appearance, watertightness, durability in this New Brunswick, N. J. Sewage Treatment Plant, now 10 years old.

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Progressive Architecture
(PENCIL POINTS)

February 1949

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➡ Birth-rate figures give some clue to work ahead for architects. Normal prewar rate of 18 per 1000 had jumped in 1947 to 26.2. This means that the 18½ million children now in elementary school will reach a peak of 26.6 million by 1957; the 6¾ million high-school children will climb to about 8 million in 1960; colleges, after a drop, will again be crowded by 1960, and will reach a high point about 1965.

Arguments for school planning now to meet these statistical loads are completely valid. Home planning will likewise be affected as today's newborn citizens marry. In the 1960's we can look for another housing "emergency," unless there is better planning than now seems probable.

➡ Administration's new housing bill would provide 1,050,000 public-housing units in seven years; increase interest on housing authority bonds to 2½% but eliminate tax exemption; boost allowable construction cost per room to $2500.

President Truman's threat of government-built steel plants overshadowed his request for additional allocation controls for all scarce materials. U. S. Steel says industry can produce 68 million tons in '49 - enough to meet all but "extraordinary" demands. Size and duration of the extraordinary demand is point that will have to be settled.

➡ There are some indications of slight drop in building costs. In the east several recent big jobs have been bid at lower than estimated costs. In the Midwest similar buildings dropped about 15 cents a sq. ft. in successive bids a month apart. Estimates for construction in midyear are lower than for work to be done at once.

This is good news for designers, but raises the question whether to advise clients to wait. Best present guess is that buildings planned now will get advantage of price slump during year; waiting would be likely to run construction into new rise later.

➡ First prestressed concrete structure of importance in the U. S. is new bridge in Philadelphia. Recent international conference in Belgium highlighted European interest in this subject. Increasing interest in this country presages more such designs.

Yale's Howland Memorial prize goes this year to Sven Markelius, Swedish architect. N.Y. A.I.A. Chapter's Medal of Honor goes to Louis Skidmore. Douglas Orr has been made an honorary member of the R.I.B.A.

➡ Experiments are being made with a stainless steel paint. It is not yet in production, but preliminary tests indicate that, suspended in various vehicles, it may have many applications, can be used on wood, metal, some types of masonry.

Survey by The Housing Institute indicates that mortgage interest rates have increased (average now 5%), ratio of mortgage to sales price is dropping (to about 51.2%) and average maturity period has shortened.

A shape to have in

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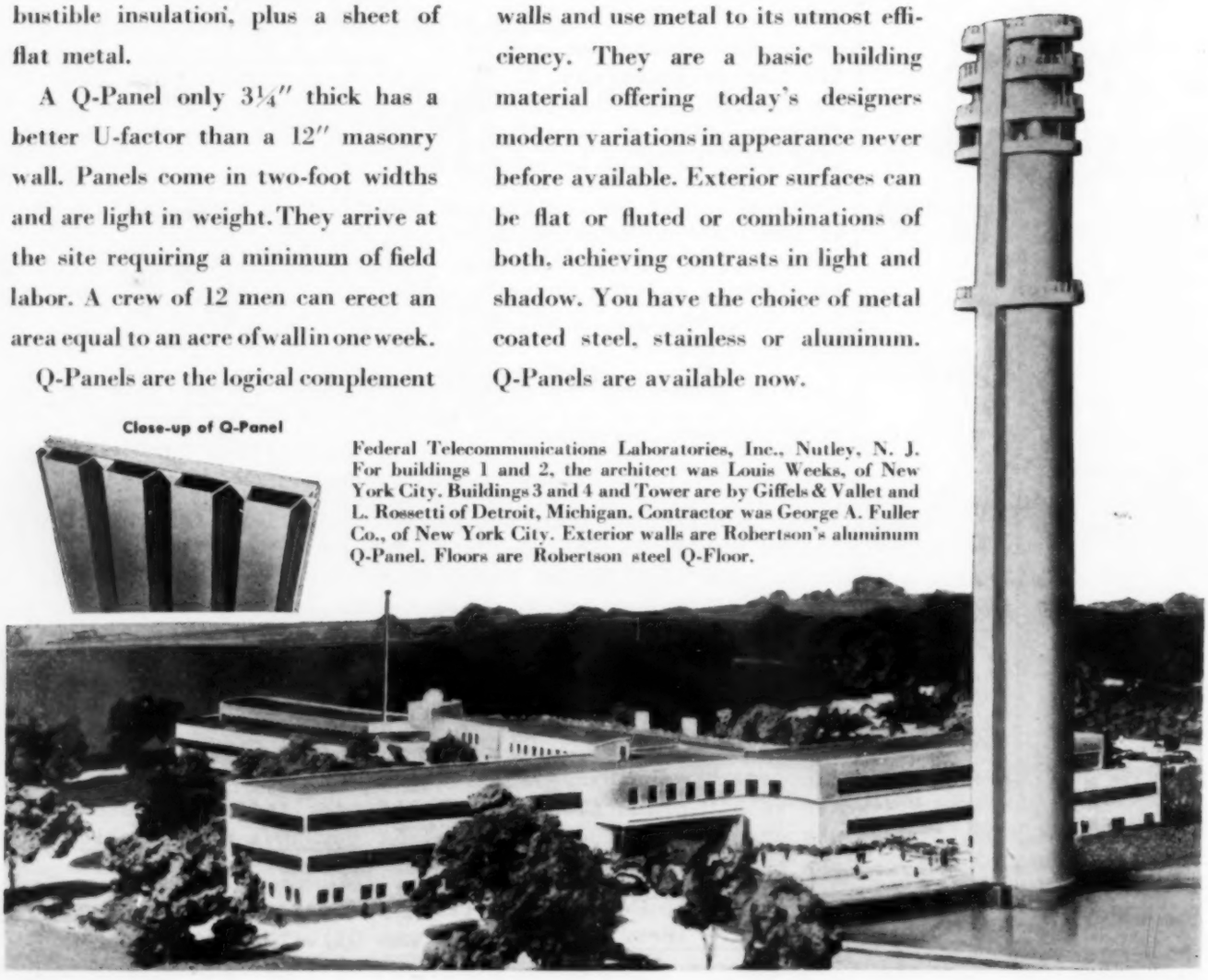
Close-up of Q-Panel

Federal Telecommunications Laboratories, Inc., Nutley, N. J. For buildings 1 and 2, the architect was Louis Weeks, of New York City. Buildings 3 and 4 and Tower are by Giffels & Vallet and L. Rossetti of Detroit, Michigan. Contractor was George A. Fuller Co., of New York City. Exterior walls are Robertson's aluminum Q-Panel. Floors are Robertson steel Q-Floor.



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MORE REPLIES TO "ARCHITECTURE—NOT STYLE"

Readers were prompt to answer our editorial in the December issue—pro and con. All space available in this department last month was devoted to letters from professionals in schools and offices. We continue below with additional reactions and one rebuttal.

P/A IS INTERESTED

Dear Editor: In February 1932, the Museum of Modern Art exhibited the work of Wright, Mies van der Rohe, Le Corbusier, Gropius, and other leaders of the new architecture. It was the first time that so comprehensive a case for modern architecture had been made in this country, and it was made by the Museum of Modern Art; the architectural magazines did not seem interested. Your magazine*, for example, commented at that time: "The only way to tell what a building is nowadays in this modern style is to snoop around and find out what is going on in it . . . it might be a school, or it might be a plant for the scientific production of unemotional bipedal automatons, but then again it might be an asylum for juvenile delinquents. . . ."

In that same month, also, your magazine* published neo-Gothic churches, a City Service gas station with a bell tower, Cape Cod cottages, and so on. Your editorial policy was then exemplified in the writings of Mr. H. Van Buren Magonigle, who attacked all things from Neutra to planned societies with equal abandon.

The very critics, whom you now ask to "stop talking nonsense," did the pioneer work. In the end, the magazines, many years later, became convinced and followed suit. Perhaps that is the function of critics and of magazines. It is not the fault of the former that architectural magazines have never dared to provide the platform for true criticism when it really counted—as it did in 1932.

Your catalogue of "four fallacies" from which we are alleged to suffer is so contradictory and confused that it requires some additional remarks:

Fallacy No. 1—We have never suggested that "all work must . . . be designed in a style." We are aware of the current antipathy toward the word "style," but it really means little more than a certain similarity in expression which is characteristic for all work belonging to one group. Thus, for example, Frank Lloyd Wright's work is in a different style from that of Walter Gropius. If architectural critics have semantic trouble with the word "style," then by all means let us invent a new word to replace it.

Fallacy No. 2—You claim that we consider "wrong" any work designed "out of style." Needless to say, we think nothing of the sort. We merely think that work designed in one style is *different* from work designed in another style.

Fallacy No. 3—Because of our Museum's preoccupation with art, we are supposed to be ignorant of the fact that many of our technical problems have yet to be solved. This is a *non sequitur*. Why should a predilection for the esthetic aspects of architecture preclude a similar and parallel interest in its technical aspects? If you would read again our article in the *Magazine of Art*, as well as Professor Hitchcock's and Peter Blake's remarks at the Museum of Modern Art's architectural symposium, you will find that the seriousness of our technological problems was stressed again and again.

Fallacy No. 4—You accuse us of lacking an understanding of the implications of democracy when we come out for monumentality in architecture. If you ask any psychologist, you will find that he agrees that there is a great human need of symbols. It is true that Stalin, Hitler, and Mussolini have been clever enough to recognize this psychological need also; but because a dachshund has four legs everything with four legs is not a dachshund. Our country, and every democratic country, has thousands of architectural symbols of a monumental character which are the focal points of our democratic aspirations. We need only mention the Houses of Parliament in London, Independence Hall at Philadelphia, or the Washington Monument.

The entire tone of your editorial was deliberately antihistorical, because you apparently still believe that a reference to architectural history somehow implies a return to architectural reaction. In our time, with its incredible speed of communication, the most recent development soon becomes history, and the architectural critic thus quickly becomes an historian. In order to evaluate the historical importance of a contemporary movement, the direction of past movements must be *understood*, which does not mean that it must be *imitated*. The English *Architectural Review*, one of the few magazines to publish architectural criticism, is able with equal authority to evaluate the work of Le Corbusier and of Palladio. But there is never any doubt about its contemporary sympathies.

If your magazine wishes, as you indicate at the end of your editorial, to advance architectural techniques rather than the art of architecture, more power to you! But in that case, it is very hard to see why PROGRESSIVE ARCHITECTURE, a scientific magazine, should object to other magazines and other institutions concerning themselves with matters that you do not wish to see within your province.

If PROGRESSIVE ARCHITECTURE wishes to promote more building, then that will be fine for building, and it will be fine for your advertisers, the manufacturers of building materials. It will not necessarily result in better architecture.

PHILIP C. JOHNSON, Acting Director
PETER BLAKE, Curator
Department of Architecture
and Industrial Design
The Museum of Modern Art
New York, N. Y.

DEFENDS DISCUSSION

Dear Editor: I agree with you thoroughly that much discussion about specific styles in contemporary architecture is futile. Essentially, style comes from an inner consistency underlying an entire building and determining all of its details; it is the result of a creative process on the part of a person who has himself an inner consistency of character and ideals. To me that is the only kind of style worth worrying about.

From this point on, however, I find much in your editorial to which I must express violent disagreement. A conscious search for beauty is a definite and important part of architecture; it is the architect's job to develop an environment for persons and for a society, and this environment must be as visually rich and composed, as emotionally expressive, and as functionally useful as it is possible for him to make it. In this process he will naturally use the materials which for each particular job seem most appropriate. Some of these materials will be new and some will be old. Each will be chosen for its functional appropriateness, its economy, and its place in the visual whole. Any architect who uses a material *merely* because it is new may be mistaking means for ends. New building materials which solve existing problems better, more economically, and more beautifully than older ones are naturally those used by any creative designer. On the other hand, an architect who uses new building materials and new techniques to the loss of either functional efficiency

(Continued on page 10)

* *Presumably "Pencil Points" (12 years later P/A was born).*

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mistake #1

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Views

(Continued from page 8)

or visual satisfaction is building what may be a valuable piece of construction research, but is not building architecture. He is being untrue to his responsibility to his client and to society. I am all for structural research in its own place, but I believe that society and the individual both demand first of all an ordered environment which they can come to love because it is beautiful and an environment which will be emotionally expressive of their deepest feelings.

I feel somewhat the same about monumentality. Man always wishes somehow to transcend the limitations of his individual life. Any building or group of buildings which comprises elements of more than individual significance may rightly search to express something of this super-personal feeling. One thinks at once of community buildings, town squares, government buildings, churches, synagogues, as places in which this quality is, or might be, dominant. One thinks, too, of industrial buildings, of dams, and powerhouses where men work together in a communal spirit to produce goods or power for communal use. Buildings built merely for private profit are individual and should not, under this definition, strive for monumental quality. It is perfectly true that men yearn for an order in their surroundings of more than personal scope and that this desire is frequently starved and thwarted in much modern building. True monumentality for our age will arise inevitably when we succeed in developing really expressive solutions to many different social building programs.

And, lastly, I do not think it is talking nonsense to discuss as thoughtfully as we can the basic drives behind the art of architecture. Progress and understanding can only come from the fullest possible discussion; it is for that reason that I found the *Architectural Review* Symposium among the most significant contributions to recent architectural criticism. We may not agree with it, but it certainly should make us think.

TALBOT F. HAMLIN
School of Architecture
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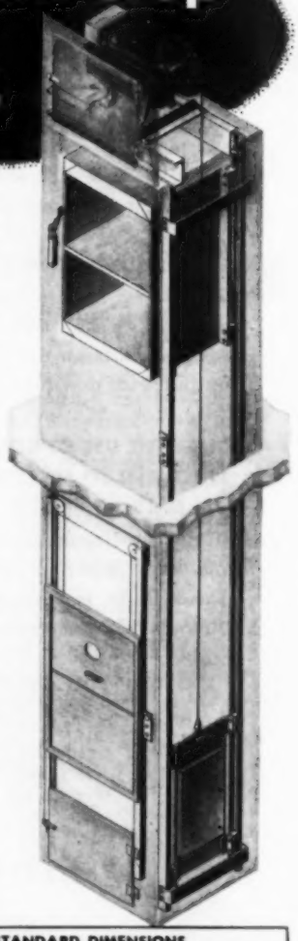

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MEANS VS. ENDS

Dear Editor: The editorial "Architecture—Not Style" in the December issue of PROGRESSIVE ARCHITECTURE calls attention to a point of view toward architecture which seems to me to rest on several fallacious premises.

Fallacy No. 1 is that the only valid basis by which any building can be judged is "its contribution to better living." According to a poll taken among 500 members of the American Institute of Architects there is a widespread belief in architectural values other than those of pure material utility. Architects who have contributed to the development of modern architecture, such as Frank Lloyd Wright and Le Corbusier, agree. It is startling that this part of their message is today so largely ignored.

Fallacy No. 2 is that the home of the common citizen is the important medium for architectural expression. The intangible values of the national capitol or the New York City Hall are an essential part of the life of a community as a whole. Today we have comparable problems in such buildings as the United Nations Headquarters.

Fallacy No. 3 is that the architectural styles are unselfconscious expressions of culture. What of Abbot Suger and the Gothic? Or Michelangelo and the Baroque?

Fallacy No. 4 is that time spent on thinking about the values of architecture is man-hours lost from bricklaying. Would not the unions refuse to let a critic carry a hod?

My most serious disagreement is with your exaltation of means and indifference to ends. Materials, techniques, and research into them, are necessary tools. Heedless development of these technical innovations without reference to the possible consequences, can be dangerous. This indeed, ". . . is likely to influence the architecture of our

(Continued on page 12)

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Views

(Continued from page 10)

time so as to make it an historical farce."

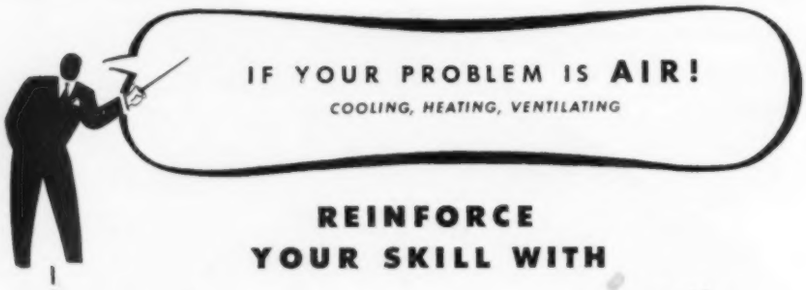
As Chermayeff has pointed out, the logical extreme of scientific nonesthetic functionalism is to put an impossible burden on the architect. It is demanding that he become a better psychologist, physiologist, and chemist than the specialists in those fields. Can architecture compensate anyone for the ills of our society by providing a planned environment, tailor-made for each individual that will fit his personality as a denture fits his jaw?

The buildings which illustrate your editorial embody a number of forms and shapes which make them characteristic of our time, the graceful expression of our way of architectural thinking, shapes which they share with dozens of other examples illustrated in your pages. If "style" is not to be used, a term must be found for this common denominator which is a formal and esthetic one.

Good critics of literature and drama, of the arts of music, painting, sculpture, and the dance exist because they have been encouraged and supported by daily, weekly, and monthly publications for generations. Architecture, alone among the arts, is today without a body of acknowledged critics, not even in the professional papers. Is it that architecture is no longer considered to have any status except that of a big business? If there were a considerable volume of architectural criticism, fine critics might be trained up; that is if enough people care enough about good planning, refined structure, and daring imagination to wish that such precious wheat be now and then singled out from the deluge of regurgitated clichés. Surely not *everything* that is published makes an equal "contribution to better living."

Enormous opportunities lie ahead for the development of an architecture of which we can be proud. Let us incite the widest possible discussion of what its objectives may be at all levels.

C. L. V. MEEKS, A.I.A.
President, Society of
Architectural Historians



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Dear Editor: In your December 1948 number you have an editorial entitled "Architecture—Not Style." As the article refers particularly to what it takes to be the theme of the Architecture Department of the Museum of Modern Art, I felt like sending you this letter, dealing in particular with "Fallacy No. 4," and the last sentence of the first page of the editorial.

If schools, hospitals and the now prevailing cabin-style house were all that the citizens of a civilized nation needed, people would be perfectly happy if they all had kitchens, beds, and bathrooms, with places to send the children to school and the sick to get well.

But they aren't!

"Religion is the opium of the poor" has been said. Then the automobile, radio, and movie are the drugs of the average American and if he is limited to Nature through gasoline smoke, Music through wires and Theatre on a sheet, then living in package form will be all he wants.

But it isn't!

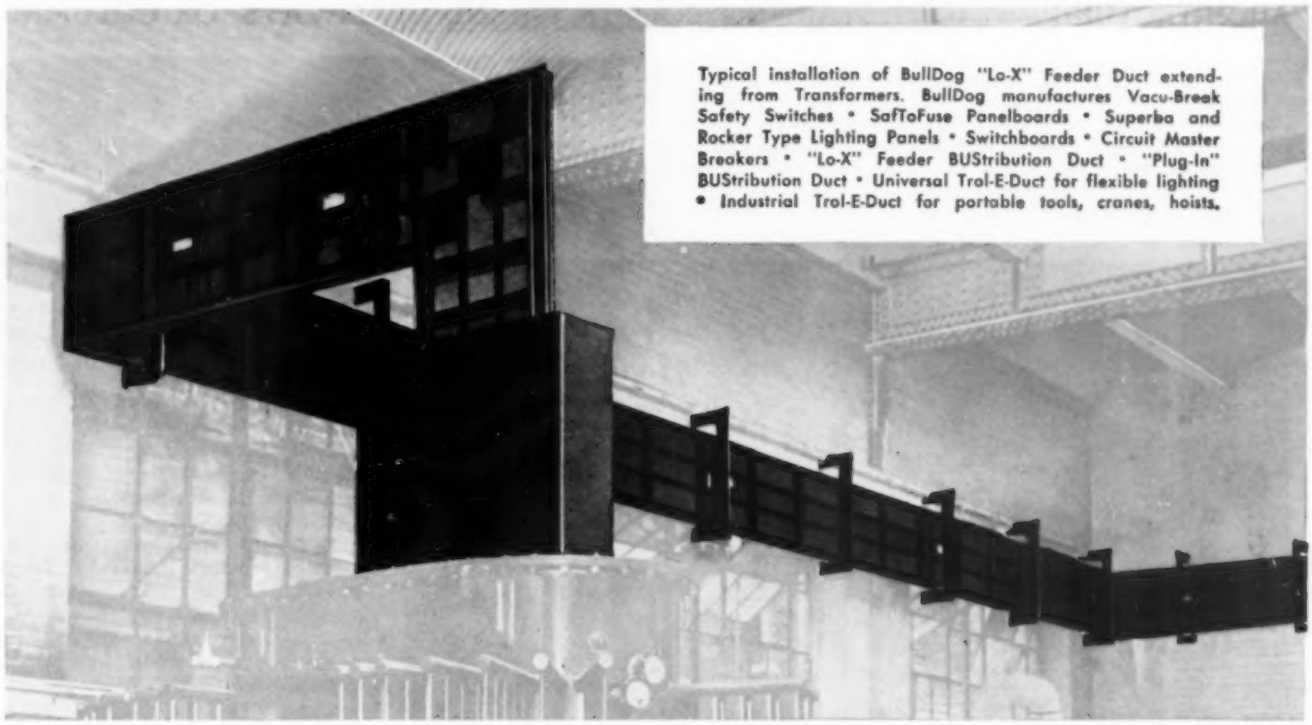
They do want something more. Materialism can be a False God and, so far, human beings never have been willing to worship it alone. They must have something bigger than their own little rut or their own vulnerable bodies. They will continue to do so and take enormous interest in monuments, from Parthenons to Chartres, Rockefeller Centers to Hoover Dams, Lincoln Memorials to Statues of Liberty, as long as they crawl, scoot, or fly on the earth.

"The implications of Democracy" are not at all against grandeur in building. Once the housing, etc., is solved—even before that—the people will demand some kind of architectural inspiration. The advocates of monumentality are, as usual, only a little in advance of the times.

PHILIP L. GOODWIN, F.A.I.A.
New York, N. Y.

ARCHITECTS and ENGINEERS

This message will also appear in a broad list of publications that are read by the men you seek to influence . . . your prospective clients



Typical installation of BullDog "Lo-X" Feeder Duct extending from Transformers. BullDog manufactures Vacu-Break Safety Switches • SafToFuse Panelboards • Superba and Rocker Type Lighting Panels • Switchboards • Circuit Master Breakers • "Lo-X" Feeder BUStribution Duct • "Plug-In" BUStribution Duct • Universal Trol-E-Duct for flexible lighting • Industrial Trol-E-Duct for portable tools, cranes, hoists.

No power pirates in <u>this</u> feeder system!

POWER pirates . . . ? Yes, such as Excessive Temperature Rise, and High Reactance Voltage Drop. They specialize in robbing you of electrical power! In BullDog "Lo-X" BUStribution Duct, they are kept under control.

BullDog "Lo-X" BUStribution Duct is built with a ventilated casing and special bus bar arrangement. Ventilation allows conductor heat to pass off into the air; closely spaced "paired-phase" bus bars reduce reactance, hold voltage drop to a minimum.

"Lo-X" Duct is adaptable to almost any power distribution setup. Standardization means *known* performance . . . even before installation. Prefabricated, factory-built units mean real savings in initial installation. Also, you can revamp a BullDog "Lo-X" BUStribution Feeder System to fit any change in plant arrangement, without scrapping a single part!

Underpowered equipment due to "power pirates" in your feeder system may be costing you plenty. Call in a BullDog Field Engineer. He will gladly answer your questions and show you an installation of "Lo-X" in your neighborhood.

BullDog Field Engineers welcome the opportunity to sit in with you during the early planning stages of a building project. Their knowledge of electrical distribution layout can mean savings in installation costs, as well as efficiency and reliability in actual operation. Why not take advantage of this service?

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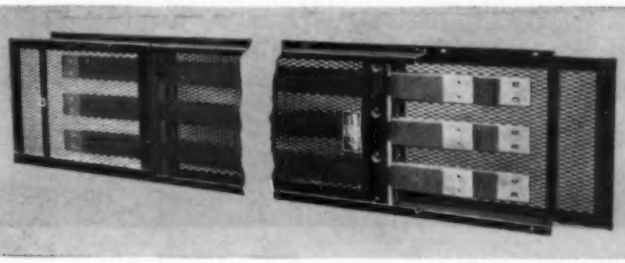
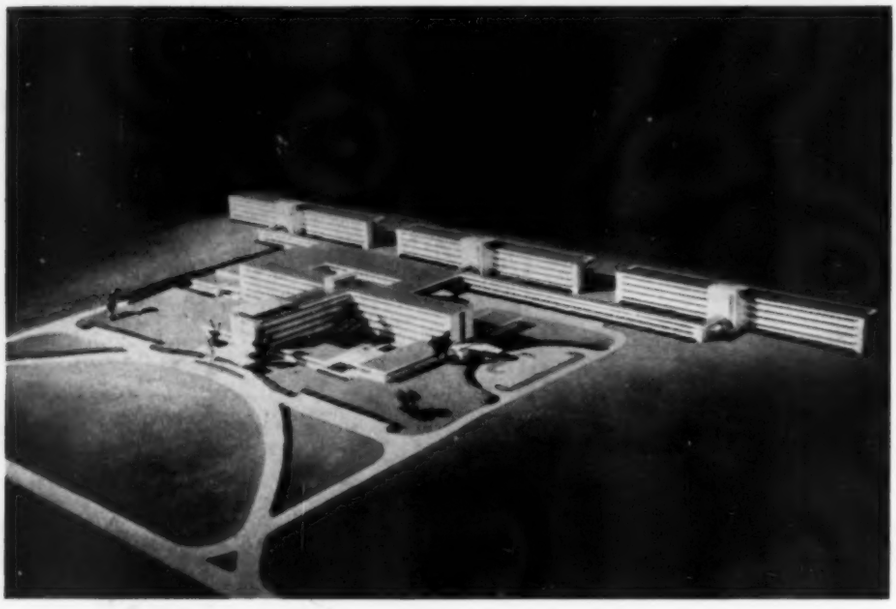


Section of BullDog "Lo-X" BUStribution Duct, showing the ventilated nature of the steel-mesh casing. Wrapped bus bars, utilizing air as the main dielectric, are mounted on porcelain insulators in "paired-phase" arrangement. "Lo-X" BUStribution Duct is made in capacities from 600 to 4000 Amps.; 600 Volts or less; 2, 3, and 4 poles.

ARCHITECTURE WITHOUT STARLING ROOSTS, GRAND STAIRWAYS, OR COLUMNS

Government architects displayed an impressive array of work consistent with contemporary design criteria, at the 11th annual exhibition of Association of Federal Architects, recently at the National Museum, Washington, D. C. Gone were the familiar Bureau clichés of the Thirties; replaced by candid architectural expression and appropriate structural solutions. Significant was the large number of hospital projects shown, reflecting nationwide interest in improvement of health facilities and, more specifically, in the veterans' hospital program.



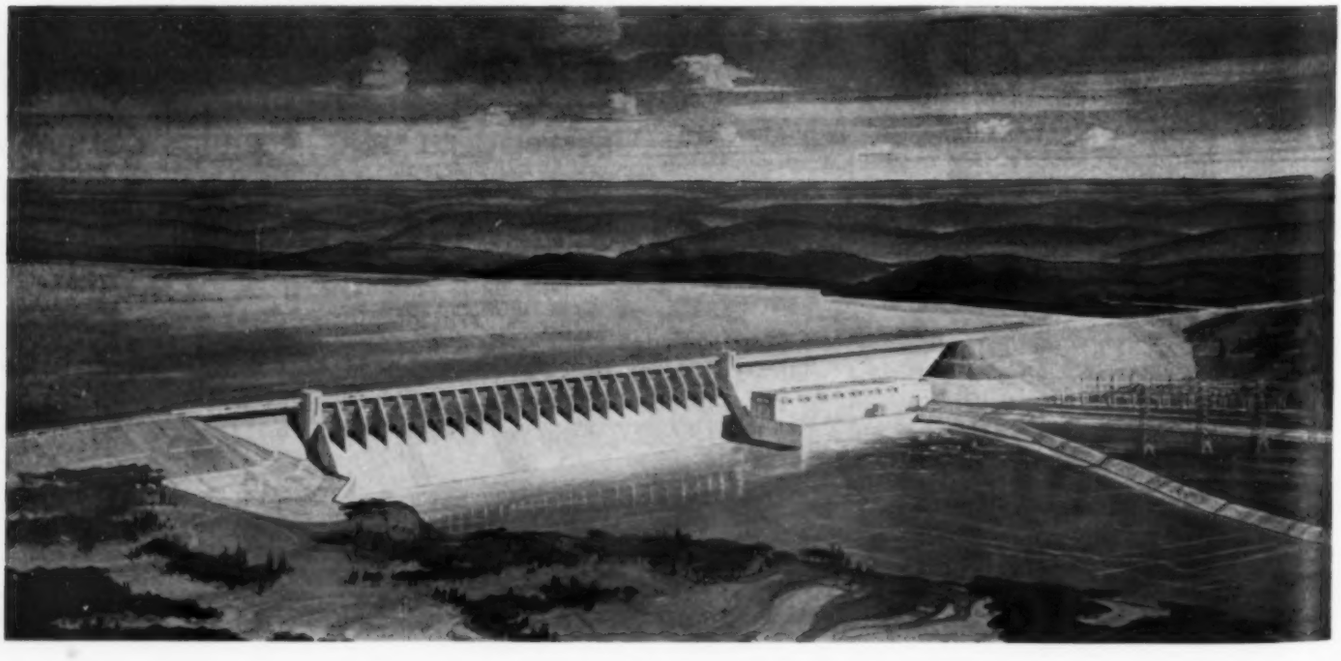
Prize winners in the recent 11th annual exhibition of Association of Federal Architects at Washington, D. C., included the design (above) for a 1000-bed medical center on Guam which won the Special Book Prize, Best of Show, First Architectural Award, and Second Model Award for the designers, from Bureau of Yards and Docks, USN (which won the Bronze Medal for the second time); and the design (below) for Clark-Hill Dam on the Savannah River, Georgia-South Carolina, won Second Architectural Award for the District Engineers, CE, DA, and First Rendering Award.

The Jury of Award reported that it "was pleased to see that the work exhibited by all the departments displayed a trend toward more contemporary expression in government departments for this effort. However, it suggests that more attention be given to the factors that contribute to distinguished architecture. The lesson to be learned from the architecture of ancient Greece, the English Georgian Period, and America's own early colonial period, is that distinguished design is achieved through the most rigid discipline and directness in expression of the honest craftsmanship that is incorporated into the structure; and that 'taste,' which is judgment in selection, is an indispensable part of the designer's equipment. 'Modern Architecture,' even more than the great architecture of the past, requires a discipline and taste which will knit an architectural composition into 'elegant simplicity' of form so as to express its technique in the most convincing terms and be pleasing to the eye in shape, color, and texture of unaffected repose.

"The Jury wishes to commend the Association of Federal Architects for its efforts to stimulate design through these annual exhibitions."

The Jury of Award included Slocum Kingsbury, president, Washington Chapter, A.I.A.; Dr. Thomas H. Locraft

(Continued on page 16)



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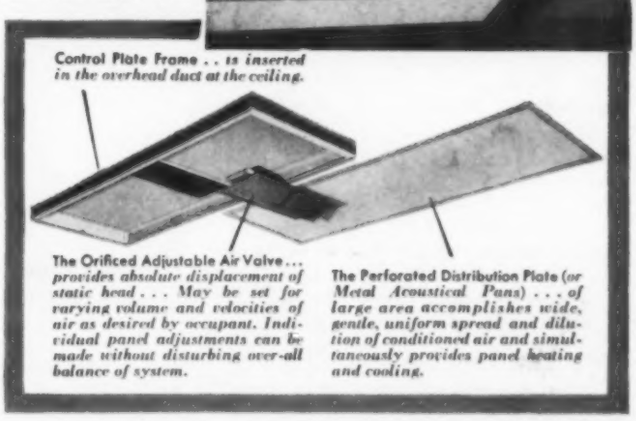
Multi-Vent panels completely concealed by metal acoustical ceiling in Ford Motor Co. offices, TERRACE PLAZA HOTEL BUILDING, Cincinnati. Architects, Skidmore, Owings & Merrill, N.Y.C. Contractor, Frank Messers & Sons, Cincinnati. Consulting engineer, Jaros, Baum & Bolls, N.Y.C. Air conditioning contractor, Carrier Corp. Owner, Thomas Emery's Sons, Inc.

A Multi-Vent Panel exposed by removal of six acoustical pans.


Control Plate Frame . . is inserted in the overhead duct at the ceiling.
The Orificed Adjustable Air Valve . . . provides absolute displacement of static head . . . May be set for varying volume and velocities of air as desired by occupant. Individual panel adjustments can be made without disturbing over-all balance of system.
The Perforated Distribution Plate (or Metal Acoustical Pans) . . . of large area accomplishes wide, gentle, uniform spread and dilution of conditioned air and simultaneously provides panel heating and cooling.

MULTI-VENT is the only air diffusion system you can't feel because *only* Multi-Vent's exclusively patented total displacement valve and large perforated distribution plate can provide the very low velocity and widespread air delivery necessary to completely eliminate drafts and the subtle, annoying sensations of draft, i. e. uneven room temperatures.

MULTI-VENT is an air diffusion system you can't hear, because Multi-Vent's recommended duct velocities and air volume requirements are so low that no audible friction noise is generated by the entering air. In addition, the sound absorption qualities of the perforated distribution plates actually reduces the noise level in any room.

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MULTI-VENT, moreover, is by far the most *effective* and *efficient* air diffuser on the market today! Accurate tests show that Multi-Vent's low velocity air delivery makes possible the use of much higher diffusion temperature differences without affecting the room occupants' comfort. This in turn greatly reduces the air volume usually required to take care of a given load . . . thereby not only making possible substantial reductions in the tonnage of the basic air conditioning equipment, but also adding greatly to the comfort factor. The result is truly superb comfort. *No drafts . . , no sound of rushing air . . . no protruding ventilating fixtures.* Write for Bulletin for complete information and specifications.

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Progress Report

(Continued from page 14)

and Dr. Paul A. Goettlemann, professors of architecture, Catholic University, Washington, D. C.; Charles M. Goodman and John W. Stenhouse, Washington architects.

More than 300 exhibits were entered by nine agencies participating: Bureau of Yards and Docks, Department of the Navy; Corps of Engineers, Department of the Army; Office of the Supervising Architect, Federal Works Agency; Institute of Inter-American Affairs, Department of State; Bureau of Indian Affairs, and National Capital Park & Planning Commission, both Department of Interior; Department of the Air Force; Bureau of Prisons, Department of Justice; and Housing and Home Finance Agency.

In the Departmental Exhibits Division, the Association's highest award is the *Bronze Medal*, awarded to the agency displaying the highest quality of work based on general excellence of design. This year, for the second time, the medal was awarded to the Bureau of Yards and Docks "for the general level of excellence of the work shown, for displaying the most understanding of contemporary design, for the skill and taste exhibited in the treatment of a great variety of buildings, for displaying a sense of modesty and unaffected honesty of exterior expression." Honorable mentions for *Second* and *Third Awards* went to the Public Buildings Administration and to the Health and Sanitation Division, Institute of Inter-American Affairs, respectively.

Prize Winners Again

For individual items in the departmental exhibits, the *Special Book Prize* and *Best of Show* was won by O. A. de la Rosa and T. A. Pope, of Yards and Docks, for their design of the 1,000-Bed Medical Center, Guam. This the jury considered the "most outstanding example of architectural design in the exhibit. Convincing demonstration of study technique in design, net result is distinguished architecture." It was the third successive time the team of de la Rosa and Pope had won this prize!

In Architectural Design, the *First Award*, $25, also was given for a group of studies of the Guam Medical Center, by de la Rosa and Pope, which showed, according to the jury, "skill, taste, judgment, and discipline in design displayed to a high degree of competence. Well-studied plan, distinguished contemporary character, handsomely presented." *Second Award* winner was a design of Clark-Hill Dam, Savannah River, Georgia-South Carolina, by District Engineers, Corps of Engineers; "a straightforward design of a spectacular subject executed without superfluous architectural detail." *Third Award* went to a group of drawings on the Expansible House, designed by J. Orendorff, H. D. Whitney, B. Wagner, W. S. Brown, H. Perrin, B. Takeuchi, of Housing and Home Finance Agency.

A group of nine interior studies and photographs, designed by Robert D. Barnes, Bureau of Prisons, won *First Award* in Interior Design, "for evidence of careful study given to operating requirements."

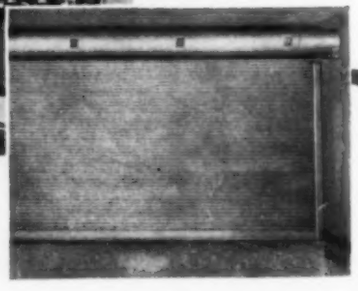
The Department of the Air Force won both awards for Site Planning. *First Award* winner was a Study for an Air Base, designed by Charles M. Goodman. In the jury's opinion this was a "studied arrangement of zones of operation, carefully articulated to provide for smooth communication in and between zones. Evidence of a careful study of operating requirements. A complicated subject handled with assurance." A Study for Housing Area, designed by S/Sgt. A. C. Lyras, which the jury called "a livable housing group showing careful study of circulation," won *Second Award* in this class.

Among Presentation Drawings and Renderings the jury chose a delineation of Clark-Hill Dam by Edward Allen Moulthrop, District Engineers, for the *First Award* as "a distinguished example of color rendering; straightforward presentation of the subject; well-selected perspective view to show the design in its true setting; easy to read." *Second Award* went to a Rear View of the Guam Hospital, by Walter

(Continued on page 18)

KINNEAR "AKBAR"
ROLLING FIRE DOORS
automatically block spread of flames

These dependable, positive-action doors combine modern styling and fire protection at this entrance to Penney's in the smart, new Terrace Plaza Hotel Building in Cincinnati.



Outstanding structures here and abroad rely on Kinnear "Akbar" Rolling Fire Doors for *automatic* fire protection. These all-steel, fireproof doors set up a "road block" against flame-spreading drafts. They *coil overhead* when not in use, but *promptly* seal off doorways, windows, and corridors at the threatening approach of fire. Positive closure is certain because Kinnear Rolling Fire Doors are *pushed* downward automatically by a strong auxiliary spring. They are *controlled* in downward speed by a special safety device, to avoid personal injury and to lessen floor impact. If raised after closure as an emergency exit, the doors are closed again automatically by the counterbalance spring.

Lack of fire-door protection has proved an important contributing factor to losses in major fires. Akbar Fire Doors are approved and labeled by Underwriters' Laboratories. In many cases these doors save enough in lower insurance rates to repay their cost in two or three years. Built to fit building openings of any size, they can be equipped for daily service use, with or without motor operation. When extra fire protection is not required, regular (non-labeled) Kinnear Rolling Doors are preferred for service use. Write for details.

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Chicago Tribune's Third Annual

BETTER ROOMS COMPETITION

$25,000.00 in 145 Cash Prizes

ranging from $100.00 to $1000.00 each
for the best ideas for furnishing and decorating typical rooms of homes

ALL ENTRIES MUST BE RECEIVED BY 5 P. M. OF APRIL 4, 1949

DO YOU have ideas for furnishing and decorating a living room or a dining room, or a bedroom, or a living-dining room, or a kitchen-dining room, or an "extra" room, or a one-room home?

In order to present to readers again this year the fullest range of suggestions for furnishing and decorating various rooms of homes, the Chicago Tribune is conducting its Third Annual Better Rooms Competition, offering $25,000.00 in 145 cash awards for the best entries presenting ideas on this subject.

Just as the Chicago Tribune's similar competitions in 1947 and 1948 brought forth a wealth of original ideas which set the pace in this field of popular interest, so the 1949 project has been designed to set new high standards of excellence in home interior fashions.

This year's competition presents for solution seven different furnishing and decorating problems based on the needs of specific family groups and circumstances, giving the entrant stimulating challenges to his ability and ingenuity.

Here is your opportunity to plan one or more interiors just the way you would have them. And here is your chance to win substantial monetary award and national recognition for your efforts.

After the prize-winners have been chosen, the Tribune plans to give them widest publicity. Week after week, the newspaper intends to reproduce the winning ideas, or adaptations of them, in full color in the Sunday Tribune with its more than 1,625,000 circulation.

Everyone is eligible to compete, except employes of the Chicago Tribune and its subsidiaries, members of their families, and of the Jury of Awards, which will be composed of persons competent and skilled in this field.

For complete information about how to submit an entry, write today for your free copy of the rules which will be sent postpaid. As is made plain by the anonymity provision in the rules, all entries will enjoy equally fair consideration in the judging.

Fill in the coupon below, paste it on a postcard and mail today. All entries must be received not later than 5 p.m. of Monday, April 4, 1949.

MAIL THIS RULES REQUEST FORM TODAY

"BETTER ROOMS" COMPETITION
Chicago Tribune,
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Without cost or obligation to me, please send by postpaid mail complete details and rules of the $25,000.00 Chicago Tribune Third Annual Better Rooms Competition to me at the address below.

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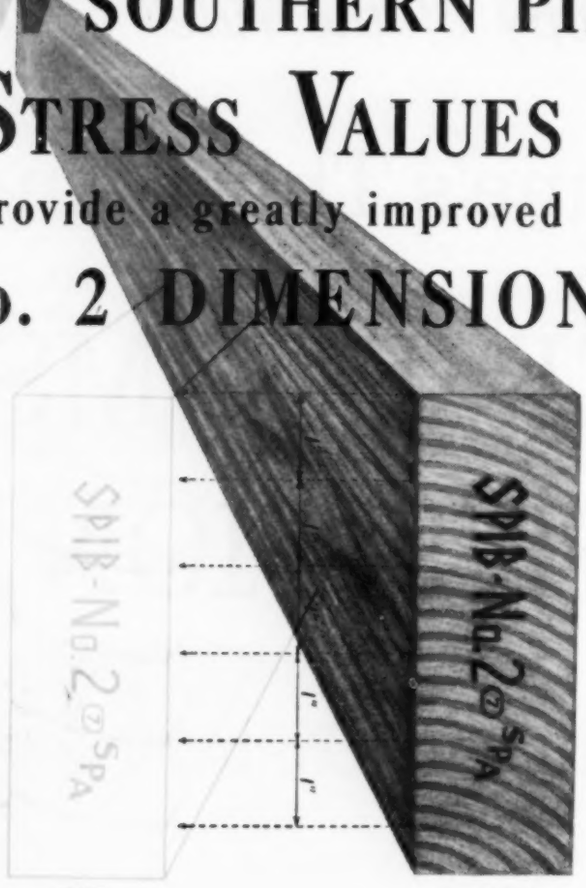

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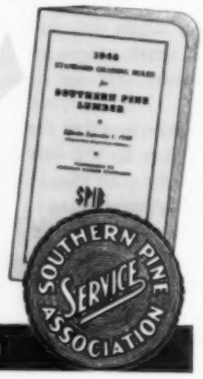

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SOUTHERN PINE ASSOCIATION

Canal Building . . . New Orleans 4, Louisiana

Progress Report

(Continued from page 16)

H. Beal, Jr., Yards and Docks, praised for "commendable brevity of expression pointed toward the single purpose of explaining the design." Winner of the *Third Award* was an Orientation Study by Bernard Wagner, Housing and Home Agency, "a well-studied and executed demonstration of the graphic method for explaining a subject through interrelated drawings." A delineation by William M. Hauseman, National Capital Parks, of a Proposed Bridge, Little Patuxent River, "an atmospheric presentation in pencil," received *Honorable Mention.*

The Bureau of Yards and Docks had both the *First and Second Award* winners among Architectural Models. Naval Air Station, Pensacola, Fla., by L. R. Warthen was adjudged best, "skillfully executed, displaying a high degree of craftsmanship coupled with considerable artistry in choice of color and indication of textures." The judges chose a model of the Guam Hospital by F. R. Romano, for the second best. They praised its "commendable restraint of the model technique for explaining a design; simple and straightforward execution with economy of entourage, well crafted."

Private Firms Cited

An especially noteworthy feature of this exhibition was the large amount of work performed by private architects and engineers under contract to the federal agencies. Such work is *hors de concour* as far as the Bronze Medal is concerned, but it is judged in separate competition for Special Awards of Merit. This year the firm of Perkins & Will, of Chicago, won the *Award in Design* for their Senior Dormitory, Shiprock Boarding School, Navajo Reservation, New Mexico, executed for the Bureau of Indian Affairs.

Two awards were given for *Presentation Drawings*, the first going to James A. Mitchell, for his delineation of the Veterans General Hospital, Pittsburgh, Pa. Altenof & Bown; York & Sawyer; Mitchell & Richey; and Ingham, Boyd & Pratt were the architects for the Corps of Engineers. A delineation of the Veterans Hospital, Wilkes-Barre, Pa., by Albert F. Loecher, won second. Kelly & Gruzen & Rosenfield, of New York, were architects for this project, under supervision of the Corps of Engineers, Department of the Army.

An Architectural Model for a 500-bed Veterans Hospital at New Orleans, La. won *First Award*, in its class, for Favrot & Reed, of New Orleans, and Faulkner, Kingsbury & Stenhouse, Washington, D. C., who designed this hospital, another Corps of Engineers project. *Second Award* went to a model of the new U. S. Courthouse, Washington, D. C., by Justement, Elam & Darby, Architects, Washington, D. C., for the Public Buildings Administration. Both of these were praised for good technique and craftsmanship.

The jury gave a *Special Award* to a group of four colored renderings comprising two hangars, a noncommissioned officer's service club, and an arctic building, delineated by Suite & Hennessy for the Corps of Engineers. Mills & Petticord designed the project.

the architect and his community

A P/A CASE STUDY

PIETRO BELLUSCHI, ARCHITECT

PORTLAND, OREGON

This discussion of the office of Pietro Belluschi is the third P/A case study (see October 1947 and March 1948) of architects who, having chosen to practice away from the more lurid metropolitan centers, have done outstanding jobs of serving the overall needs of their communities. From the start of his professional career (1925), Belluschi has worked as designer, partner, or head of a firm in the city of Portland, Oregon (400,000). The purpose of these studies is to point up the inherent opportunity that the middle-size city offers the architect with determination and talent. In addition, we are pleased to honor those firms that have made a signal success of professional practice outside the confines of Megalopolis.

The Editors

Photo of Belluschi: National-Wide Pictorial Service. Picture of entrance to the Belluschi office: K. E. Richardson.

the architect and his community: PIETRO BELLUSCHI

residential

Left: the Belluschis' own farmhouse, Aloha, Oregon, completed in 1944. Right: residence for the Platt family, Portland, Oregon (1942). *Photos: P. A. Dearborn.*

BACKGROUND

The office of Pietro Belluschi, Architect, is a direct successor to the firm of A. E. Doyle & Associate, which was founded in 1905, continued as a partnership after Mr. Doyle's death in 1928, and went out of existence in 1943 when Belluschi established his own practice. The Doyle office had long been a leading architectural firm in Portland, designing such important local projects as the buildings for Reed College; the Portland Public Library; U.S. National Bank, and the Public Service Building. From 1927 until the dissolution of the firm, Belluschi served as Doyle's Chief Designer, and with increasing regularity, work from that office appeared in the professional and consumer press. "Designed by Pietro Belluschi of A. E. Doyle & Associate" became an ever more familiar credit line for work that was distinguished for its simplicity, honesty, imaginativeness, and humility—traits that have continued to be characteristic of work emanating from the office of Pietro Belluschi, Architect.

In these studies, we are in no way attempting to present capsule recipes for success. Yet it might be noted that two factors are invariably present: a job opportunity and genuine talent as an architect. The development of the Belluschi firm constitutes one of the more obvious ways in which a new architect in a new locality might hope to develop a successful independent practice—association with an established firm, making a decisive design contribution to that firm, and eventually being recognized independently.

PRESENT ORGANIZATION

The firm of Pietro Belluschi currently has a personnel of 22. The office never has been—and never will be—a "plan mill"; that is to say, a huge office with a large staff taking on all the work that can be garnered from near and far. Belluschi's wish and, indeed, his talent is for an office no larger than one man can control; an organization in which he can take full part in the design progress of every job. And he is the first to say that an office of 22 is just about the saturation point for this type of practice. To make it workable at all, he has found it necessary to organize his work day on a rather precise routine. To understand the office operations it is necessary to know the make-up and responsibilities of the staff.

Belluschi himself is the chief solicitor of new work and over-all supervisor of progress in the drafting room. To help in the latter function, Irving G. Smith acts as chief of the drafting room and general manager, handling letters to contractors and similar related outside-contact work. But all matters pertaining to design are passed on by Belluschi himself. To assist in the initial approach to a design problem, Kenneth Richardson, the firm's head designer, shares Belluschi's office with him. Richardson's temperament and general thinking about architecture are in unusual accord with Belluschi's own. Hence, they discuss a new project, and between them work out a basic parti for its solution. Only after this initial step is taken is the job transferred for development to the drafting room. From 14 to 16 draftsmen work under Smith's supervision. On jobs of any size, one draftsman is appointed job captain for seeing that the particular job receives the full drafting attention it needs. At present, there are five draftsmen of sufficient experience to serve as job captains. The job captains frequently tend to routine dealings, correspondence, etc., with subcontractors. Rounding out the staff is one specification writer—a girl, as it happens—and two secretary-bookkeepers.

Belluschi admits that the temptation has often been strong to overextend and build a much larger organization. The dangers, though, he feels, outweigh the temptations. For one thing, it would then

Left: Menefee home, Yamhill, Oregon. This recent house will be fully presented in both *House and Garden* and P/A. Above: Myers house, Seattle, Washington. Right: Kerr beach home, Gearhart, Oregon. *Photos: Ezra Stoller: Pictorial Services; Erven Jourdan; Leonard Delano.*

become impossible for him to give due consideration to the design of each job in the office. For another and more mundane reason, a huge office is a terrific financial obligation. Thus, this as-large-as-one-man-can-handle office is his choice. And to see the firm through the lean days as well as the more prosperous, the office has a few continuing backlog types of commissions—the work for the telephone company in the State of Oregon, for instance.

In order to keep the concern going in good running order, Belluschi partitions his time carefully. For the first two hours of each day—until 10 A.M. —he is either at the drafting table or with Ken Richardson working out a parti for the newest work to arrive at the office. From 10 to 12, he opens mail, dictates, and tends to phone calls, with new or old clients, with job applicants, etc., etc. A lunch hour is often spent with a current or prospective client. And the remainder of the day—frequently up to 7 P.M.—is spent in the drafting room commenting on the work in progress or doing all the other things in the office that could not be handled in the morning session. Or, it may well be consumed in part at some one of the jobs under construction making decisions with contractors.

PROMOTION OF GOOD ARCHITECTURE

In earlier days, Belluschi did a great deal of public speaking before club groups, museum gatherings, etc. And he has served as president of the board of Portland Art Museum and on A.I.A. committees working with the City Planning Board. All such activities, he comments, have had their usefulness as well as being stimulating to him personally. Now that he has accomplished so much architecture in and around Portland, he finds that the office's completed work is the most effective "public relations" that the firm could possibly have. Not that he is inactive in public life in Portland; he still frequently speaks before local groups, and he still joins civic committees of public interest.

As for the local architect's participation in the broader aspects of architecture—regional or city planning, for example—Belluschi feels that there are two useful possibilities: actual contribution of one's time to groups concerned with such matters; awareness of all local planning proposals and possibilities, which one may use advantageously in day-to-day practice. An instance of the first possibility in his own experience was when he served on the advisory A.I.A. committee that worked with the City Planning Board when, under Arthur McVoy's direction, it was promoting Portland's river-front development scheme (December 1944 P/A). Like so many excellent plans, this did not receive the voters' OK in the form of a bond issue. But Belluschi feels that contact with such planning activities is by no means wasted effort, quite apart from the public service it renders and even though the immediate dream may not be realized. For a knowledge of plan possibilities and the trend of events makes it possible, as clients come to him, to recommend a site or a method of handling that will be in line with—or at least, not contrary to—the ideal development. Belluschi is not a joiner by nature, but he does maintain membership in one or two clubs, and he has found more than once that such associations do not come amiss.

PRACTICE IN GENERAL

Although one often hears and reads the word "beautiful" in connection with work from the Belluschi office, Belluschi, himself, is the first to emphasize that architectural practice is by no means an ivory-tower performance of crystallizing beautiful dreams into immutable forms. Not that he considers the design aspect of practice in any way secondary. Far from it. He feels that it is at once the most pervasive and indefinable element of all. But, he points

the architect and his community:

PIETRO BELLUSCHI

Top, left: a tailoring shop in downtown Portland; below: building for Electrical Distributing, Inc. Top, right: shopping center for a housing project; below: Waddle's drive-in coffee shop, near Jantzen Beach, Ore. *Housing project photo: Leonard Delano; others: P.A. Dearborn.*

commercial

out, no finished architecture would result were this the sole ability available; accomplishment of a piece of architecture involves a whole chain of exacting and specialized talents. Planning talent, engineering knowledge, efficiency in office management, competence in dealing with clients, and decisiveness in supervising construction are but a few such attendant, essential abilities.

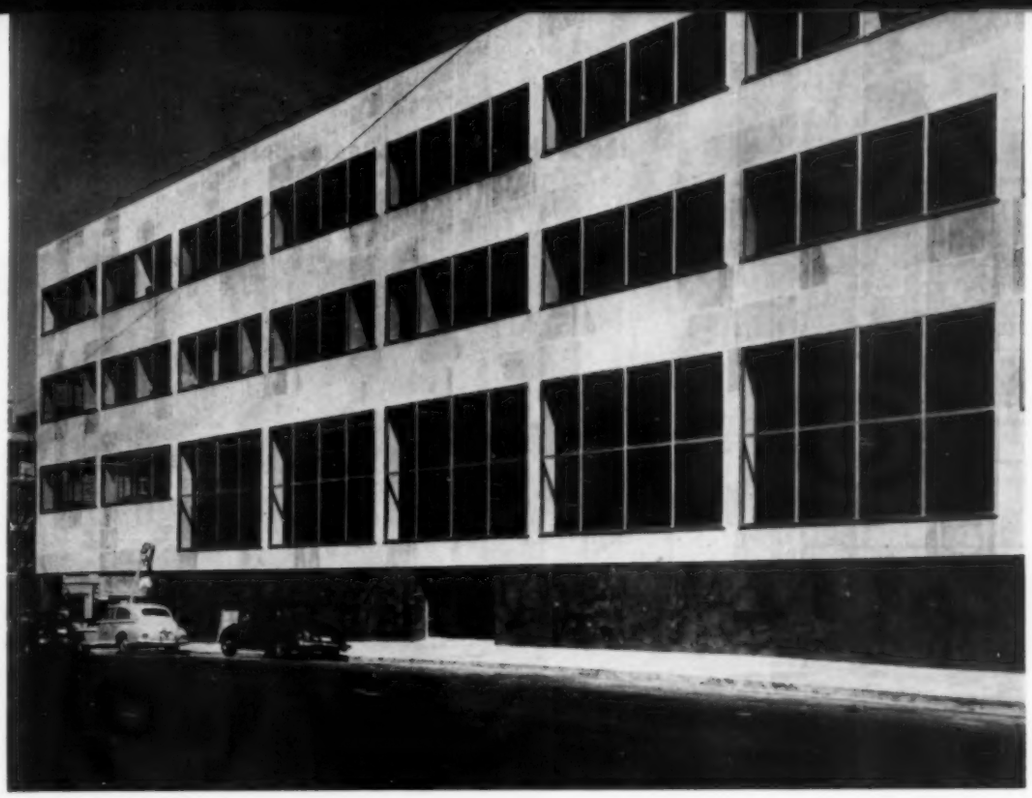
One that is infrequently mentioned but which Belluschi feels to be quite as important as any of the others is a realistic business sense. It is necessary not only to have a simple appreciation of the value of a dollar, but sufficient knowledge to talk in business terms—particularly where a large public or commercial building is involved and the "client" is a group of hard-headed businessmen. He even maintains that respect for money matters can exert a beneficial influence on design. It is not at all unusual, he says, when the need to stay within a restricted budget has resulted in simplification and improvement of a design that was overambitious at the outset.

PHILOSOPHY

We asked Belluschi how we might state his design philosophy. We had heard his statement that the backs of buildings are often more beautiful than their fronts, because on the front, "the architect usually tries too hard." We also knew that he relishes the fact that his residences have frequently been compared to the barn architecture of rural Oregon. He considers this as fine a compliment to the sincerity of his work as could well be paid.

First and foremost, Belluschi conceives of architecture as the most important of the arts, and as the one design frame within which all other of the visual arts have their best hope of being integrated. This isn't to say that he looks on the design of a building as art for art's sake. Basic to the success of any design endeavor, he readily admits, are that it be socially useful; that the plan serve the purpose well; that the selected structural method be logical and straightforward. But once these disciplines have been met, it is then the architect's function to so fuse the plan and structure, so handle matters of scale and proportion, so select the materials and finishes and colors, and so enhance the whole that the end product is what we recognize as architecture, as opposed to mere building.

A recent statement by Belluschi summaries his views on the architectural scene today: "Architecture as a purely esthetic expression has the property of being forever fluid in the minds of men who feel and think, which of course is true of all visual arts. . . . The 'delight' which we expect of architecture today, however, must be firmly conditioned not only by the numerous and complex limitations presented by its environment, but also by the social changes now occurring within nations and among the great mass of common people. In all these efforts we architects cannot be content with backward glances at the past, but in our search for truth, neither can we give the naked answer to people so much in need of emotional satisfaction. . . . In this new creative era, it is perhaps inevitable that superficial and transitory forms should appear and that our best efforts should still fall short of the great architectural works of the past. . . . I believe we can proceed toward great architecture only by steps and degrees; greatness will come, I like to think, when our society will have reached wisdom, and order, and peace, which is certainly a goal very far in the future, but not too abstract to discourage our individual efforts."



Newspaper Plant, Portland, Oregon

PIETRO BELLUSCHI, ARCHITECT

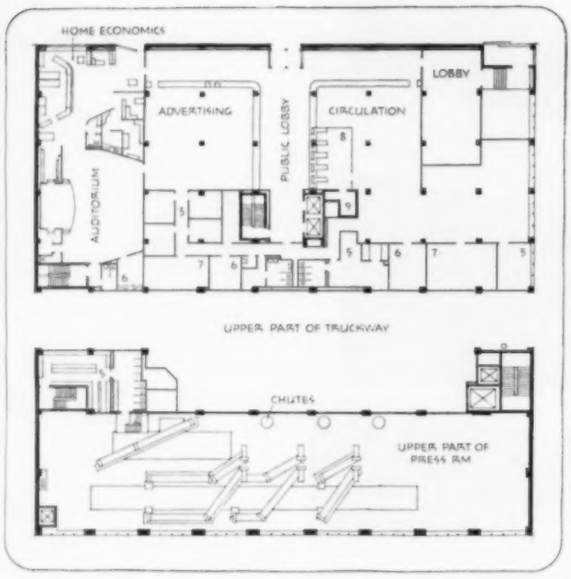
Above: west front; doors to public lobby, center. Photo at right: east or "lower" facade showing huge windows overlooking pressroom at street level. *Photos: K. E. Richardson; Ezra Stoller: Pictorial Services.*

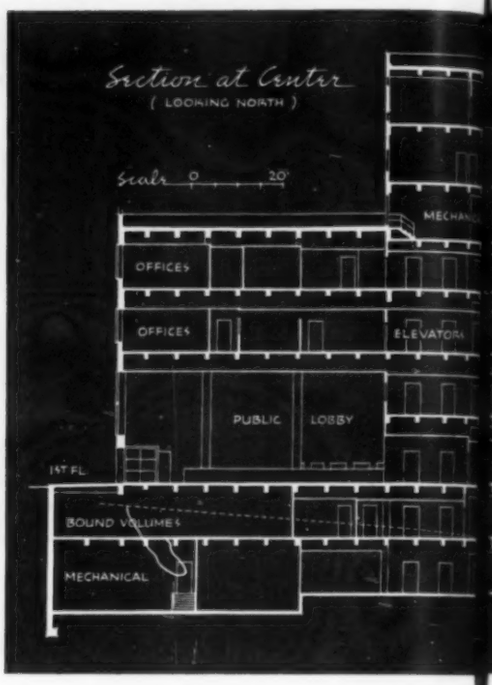
PROGRAM: Complete plant for the Oregonian Publishing Company, including facilities for production of the newspaper *The Portland Oregonian*, Radio Station KGW (owned by the publishing organization), a Hostess House where home-management advice is provided, and business offices. To assist in the highly specialized planning for and installation of presses and other mechanical equipment required for newspaper production, William Ginsberg, of New York, served as consulting engineer on the job.

SITE: An entire downtown block, with a change in level between the upper and lower main streets of 24 feet.

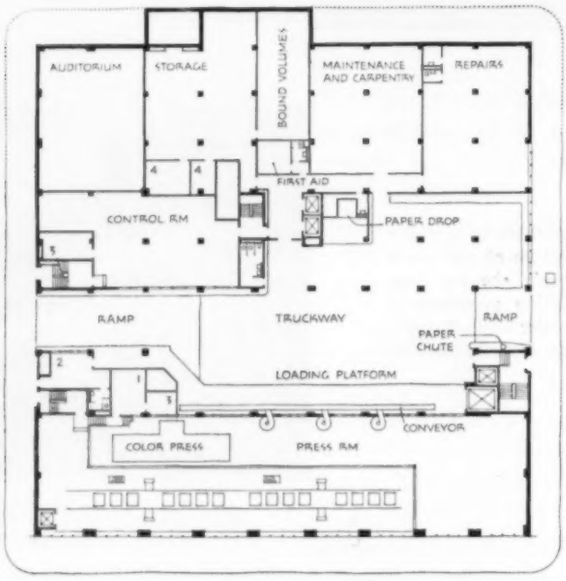
SOLUTION: A six-level (plus penthouse) block, the lower floors of which occupy the entire allowable building site. At the higher street level (to the west), two floor levels are below ground. On the east side, only a portion of the basement floor occurs below sidewalk level. An extremely important and efficient plan element is a through truck driveway that pierces the building from south to north (between side streets). Here all deliveries and pickups of printed papers are accomplished under cover.

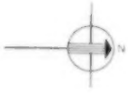
first floor





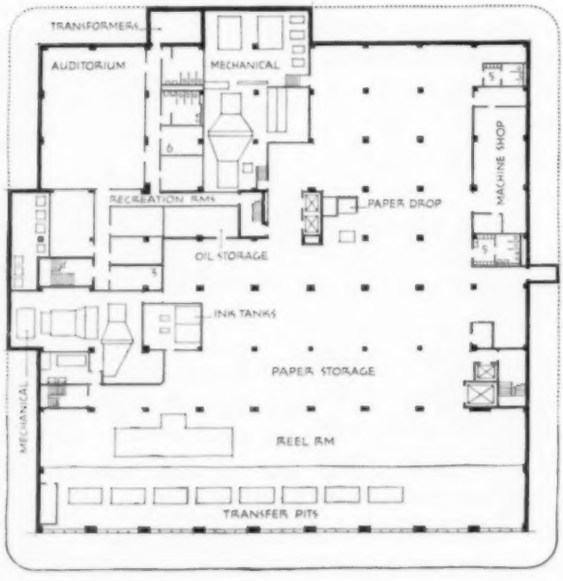
lower floor





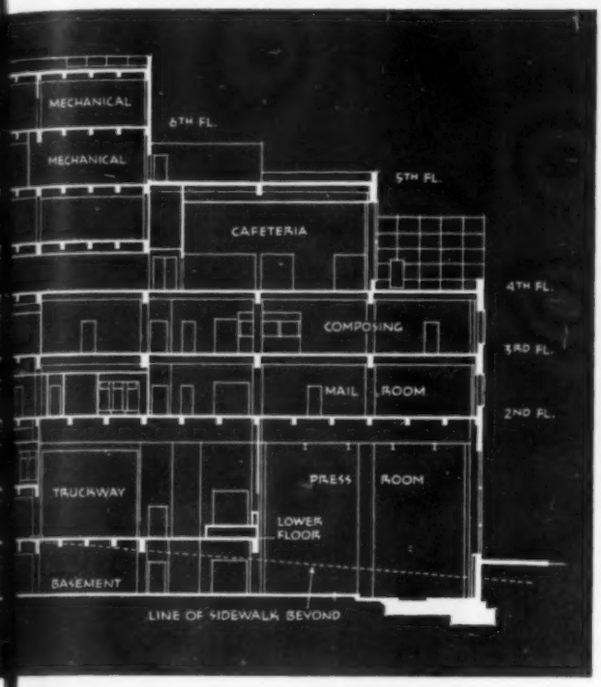
Makeready Room	1	13
Vendors and Returns	2	14
Private Office	3	15
Television, Radio Equip.	4	16
Locker Room	5	17
Storage	6	18
Conference Room	7	19
Cashiers	8	20
Vault	9	21
Files	10	22
Switchboard Room	11	23
Coatroom	12	24

basement



This building, in plan and section, is a complex mechanism or rather a complex of interdependent mechanisms. The transverse truck driveway through the building is strategically located to key in with the various steps of the process. Paper deliveries enter the plant by the driveway, and travel by chute (in a bay on the west side of the drive) to the basement for weighing and storage. When the time comes for use in the printing process, the newsprint moves to the reelroom under the presses at the east side of the basement. Printed newspapers travel up from the presses by vertical and horizontal conveyors to the mailroom on the second floor; thence, by gravity (spiral type) conveyors back down to the loading

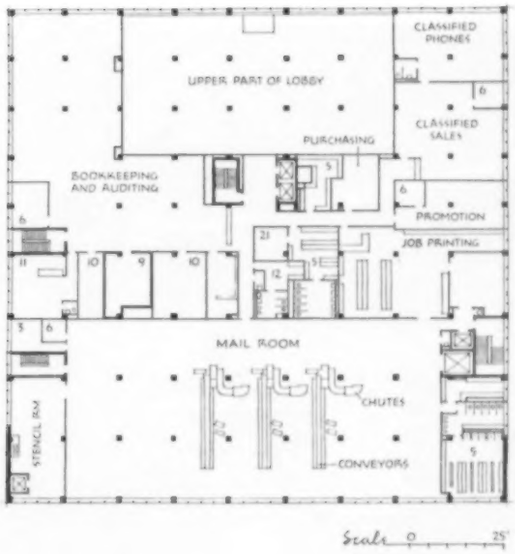
NEWSPAPER PLANT, PORTLAND, OREGON



fourth floor

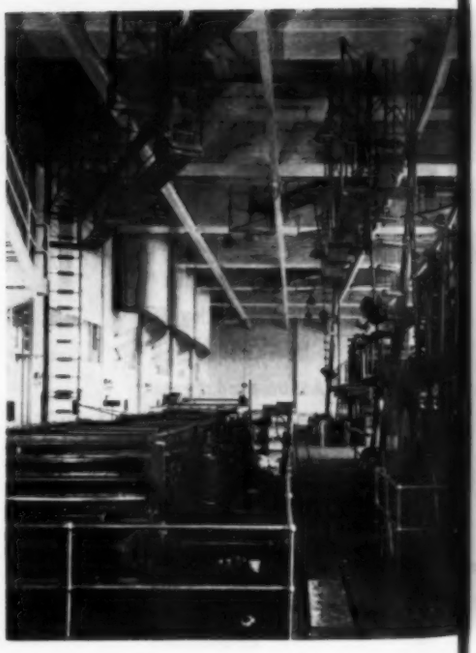
third floor

second floor



13	Darkroom
14	Dispatcher
15	Wire Photos
16	Telegraph
17	Associated Press
18	Reception Room
19	Master Control
20	Monitor
21	Lounge
22	Newsroom
23	Clients' Audition
24	Announcer

dock alongside the truck driveway and so out of the building by truck. Simultaneously, the editorial end of newspaper production is taking place in other channels of the building. On the third floor, copy from editorial offices and newsroom goes to the composing room; thence to stereotyping and so, via a "plate drop" in the southeast corner down to the pressroom and along a conveyor to the point needed for putting on the press. Other major activities in the building are the radio station (west side of fourth floor); lounge and cafeteria and executive offices (east side of the fourth floor); and the Hostess House rooms in the southwest corner of the first floor.



MATERIALS AND METHODS

CONSTRUCTION: Framing: reinforced concrete, except over 50-foot spans above pressroom (that carry 450# per sq. ft. loads) where steel was used. **Walls:** reinforced concrete, surfaced on the exterior with granite (base) or limestone (above), interiors: plaster. **Floors:** reinforced concrete with rubber or asphalt tile; mastic, wood block or terrazzo finish. **Fenestration:** aluminum sash, double insulating glass. **Insulation:** acoustical: tile on all ceilings; thermal: vermiculite application. **Partitions:** concrete or gypsum block, plastered. **Doors:** hollow metal or flush-panel birch.

EQUIPMENT: Air conditioning: reverse cycle, year-round system served from well pumps; automatic controls. **Special equipment:** presses; conveyors; lifts, elevators.

Top: night view of east facade showing excellent provision for sidewalk superintendents. Center: pressroom (color press at left); on ceiling, conveyors to take papers up to mailroom; spiral chutes on left-hand wall bring papers down from mailroom to loading dock. Bottom: mailroom. *Photos: night view, Ezra Stoller: Pictorial Services; others, K. E. Richardson.*

the architect and his community: PIETRO BELLUSCHI

NEWSPAPER PLANT, PORTLAND, OREGON

Top: the main lobby; circulation department, left; advertising department, in background. Center: entrance lobby to Hostess House (foods and decorating sections in back of partial screen at rear). Bottom: auditorium in the Hostess House area. *Photos: at top, Photo-Art Commercial Studio; others, K. E. Richardson.*

School Gymnasium

PIETRO BELLUSCHI, ARCHITECT

PROGRAM: Gymnasium for an elementary and preparatory private school. Locker and shower rooms; office; storage rooms and kitchen facilities also required.

SITE: Wooded slope above the play field. Residential neighborhood.

SOLUTION: Structure built into the hillside; reinforced concrete ground-floor walls (lockers; office) and frame (gym proper; kitchen). The architect explains that the site was the chief design determinant —rather limited grounds in a hollow surrounded by sharply rising hills. An old gymnasium occupied the only level space in the hollow; placement of the new gym on one of the slopes frees the flat space for an outdoor play area. The only design flourish is use of bright colors on the walls of basement rooms.

education

At left and below: Sacred Heart School, Oswego, Oregon. Brick veneer over wood frame; waterproof plywood panels under windows opening to terrace. *Photos: Dearborn-Massar.*

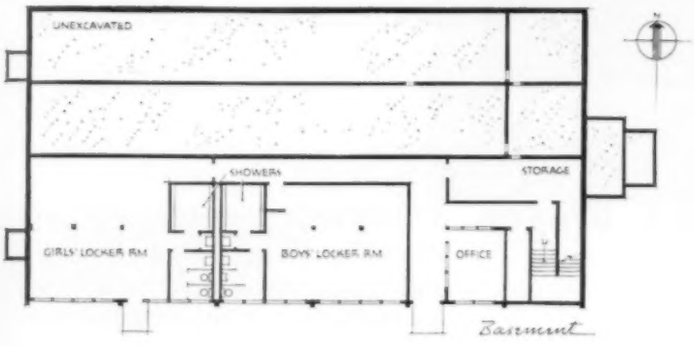
the architect and his community: PIETRO BELLUSCHI

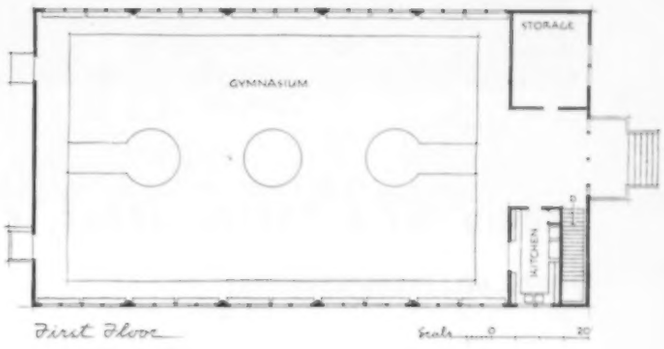
Portland, Oregon

MATERIALS AND METHODS

CONSTRUCTION: Walls: (ground floor): reinforced concrete; (upper level): fir frame, surfaced inside and out with T&G fir. **Floors:** concrete, or wood joist, with asphalt tile, maple, or fir finish flooring. **Roof:** built-up roofing. **Fenestration:** wood sash, with obscure glass. **Partitions:** wood stud. **Doors:** flush panel.

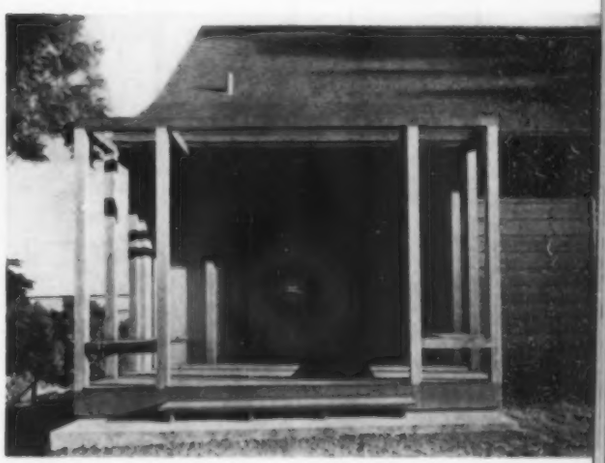
EQUIPMENT: Heating: forced hot-air system, gas fired; air diffusers. **Electrical:** conduit wiring; opal glass globe fixtures.





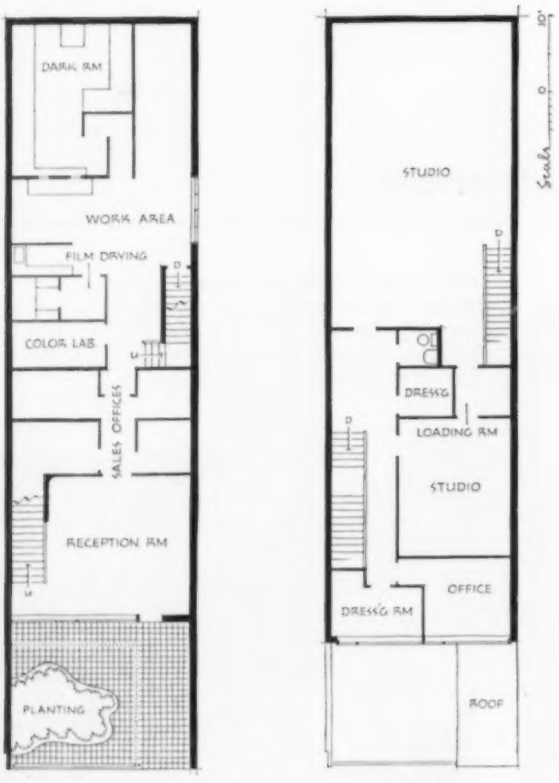
art religion

Left: Sculpture Hall and courtyard of the Portland Art Museum. Below: St. Thomas More Chapel, Portland. ***Museum photos: Roger Sturtevant; Chapel: Erven Jourdan.***



Studio for a Photographer, Portland, Oregon

PIETRO BELLUSCHI, ARCHITECT



PROGRAM: A photographic studio with two main studios, dressing rooms, necessary workrooms and a distinctive entrance and display feature.

SITE: Narrow, deep, in-city lot.

SOLUTION: A two-story reinforced concrete structure, set back from the normal street building line, forming a forecourt entrance, which is landscaped. A glass-walled reception room is treated as an interior extension of the court; a covered walkway at one side provides sheltered entrance to the building. Serving as both display space and as a partial separation of the court from the sidewalk is an ingenious glass shield on which are mounted special frames for holding photographs. Details of this screen are shown on page 83.

the architect and his community

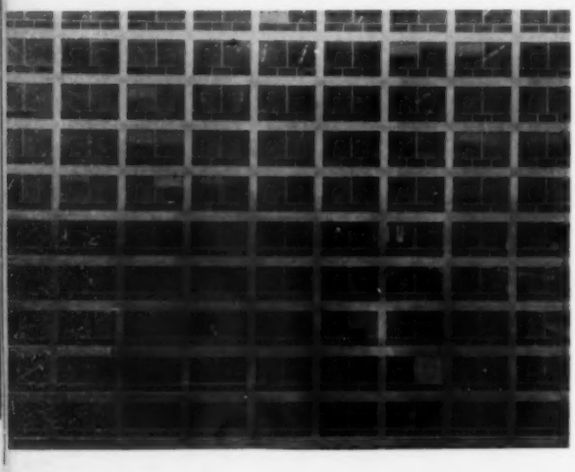
MATERIALS AND METHODS

CONSTRUCTION: Frame, walls, floors and roof: reinforced concrete. **Flooring:** asphalt tile or linoleum. **Wall surfacing:** exterior: exposed concrete; interior: plaster. **Roofing:** built-up felt and asphalt. **Fenestration:** aluminum or steel sash; ¼" or ½" plate glass; wire glass. **Insulation:** acoustical ceiling tile. **Partitions:** metal lath and plaster. **Doors:** flush wood panel.

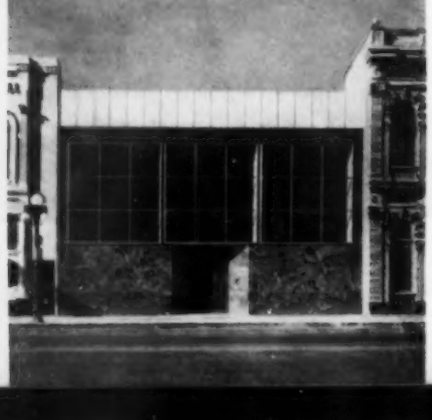
EQUIPMENT: Heating: low-pressure gravity steam system; automatic controls.

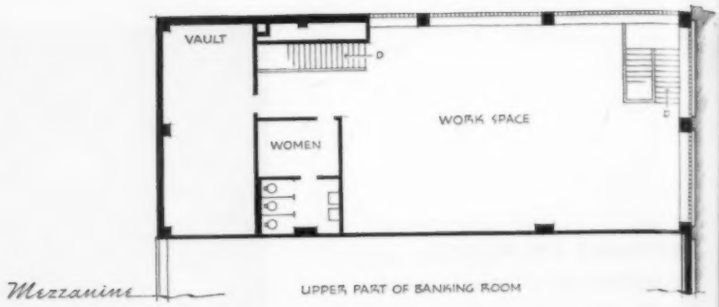
Above: forecourt, with glass display screen at left. Top, right: looking into reception room from forecourt. Bottom: view toward street from reception room. *Photos: Dearborn-Massar.*

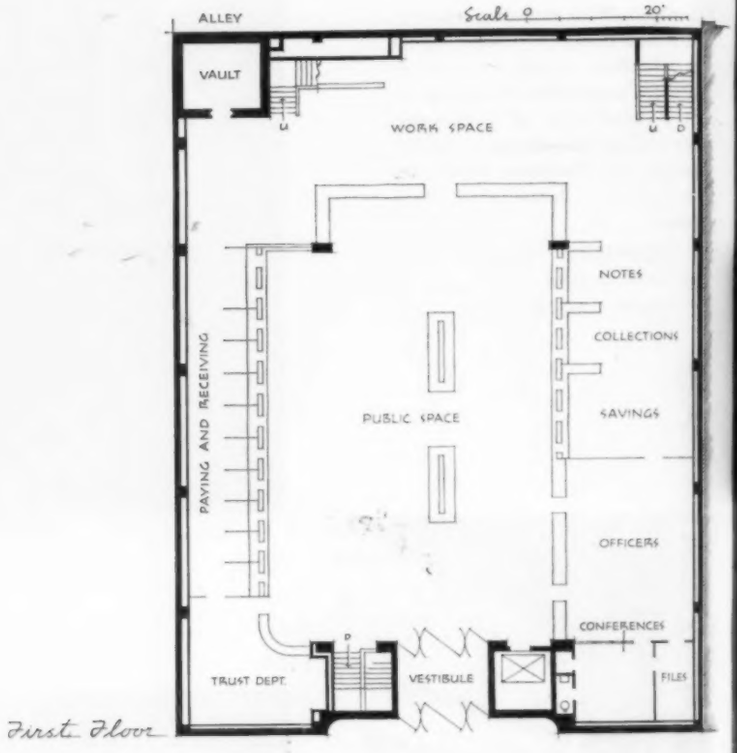
business

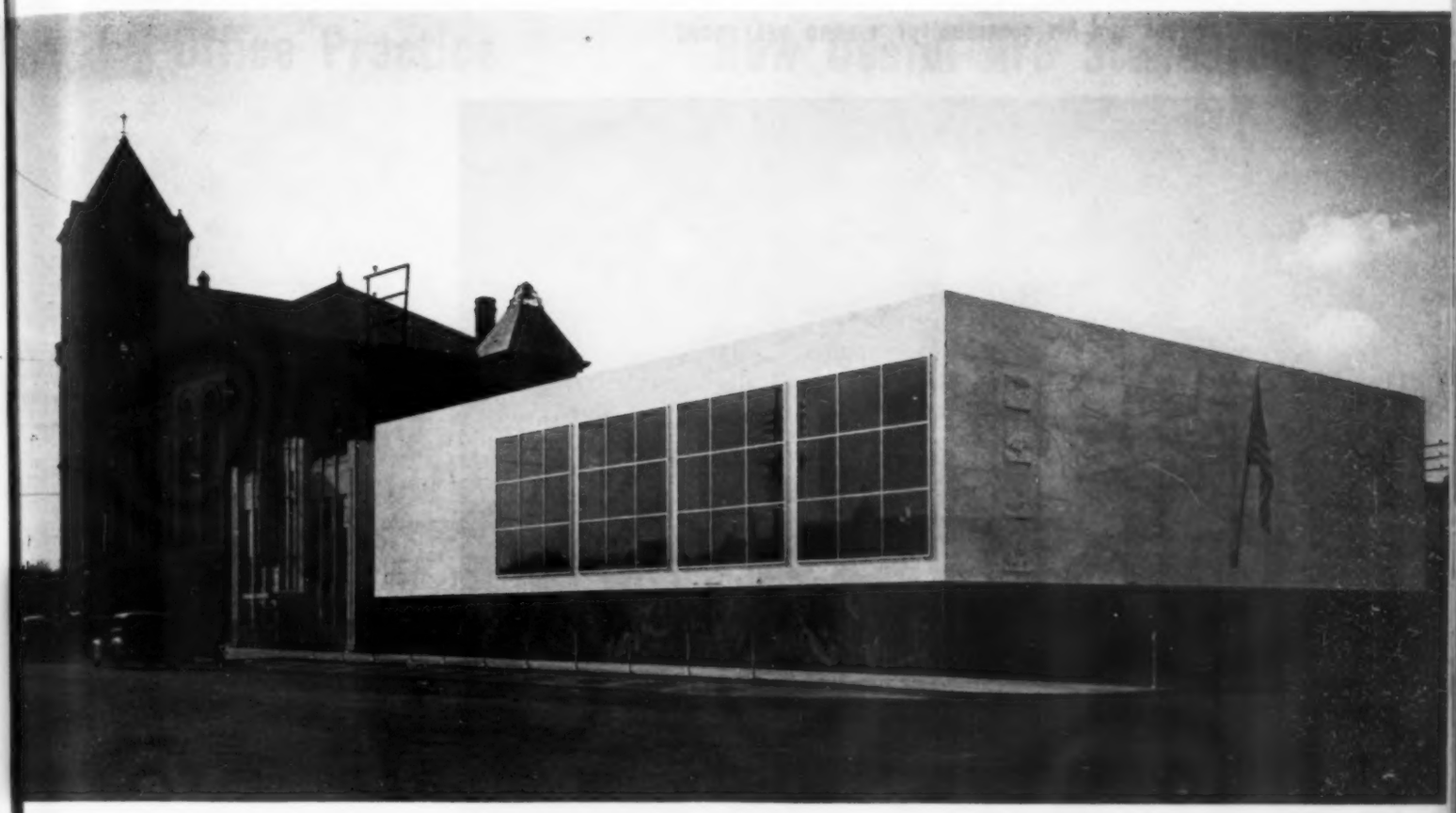


Above: Window pattern of the Equitable Building, Portland, and the module from which the pattern was developed—a typical office interior. This building neatly resolves the age-old argument about whether a large office building is more horizontal or vertical in character by frankly expressing both aspects. Below: an alteration job in Salem, Oregon—the Ladd and Bush Bank. *Photos: top, K. E. Richardson; office view, Ezra Stoller: Pictorial Services; bank, Esther Born.*









Bank, Salem, Oregon

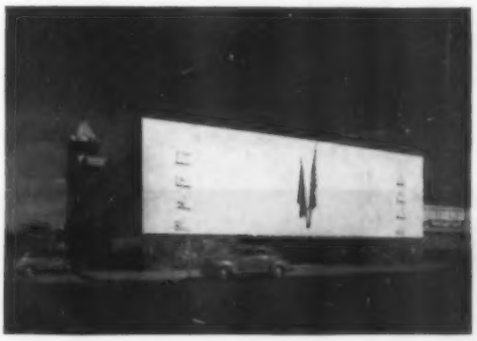
PIETRO BELLUSCHI, ARCHITECT

PROGRAM: A branch of The First National Bank of Portland that would not only serve as an efficient banking institution but would reflect some of the solidity and reliability of the parent organization.

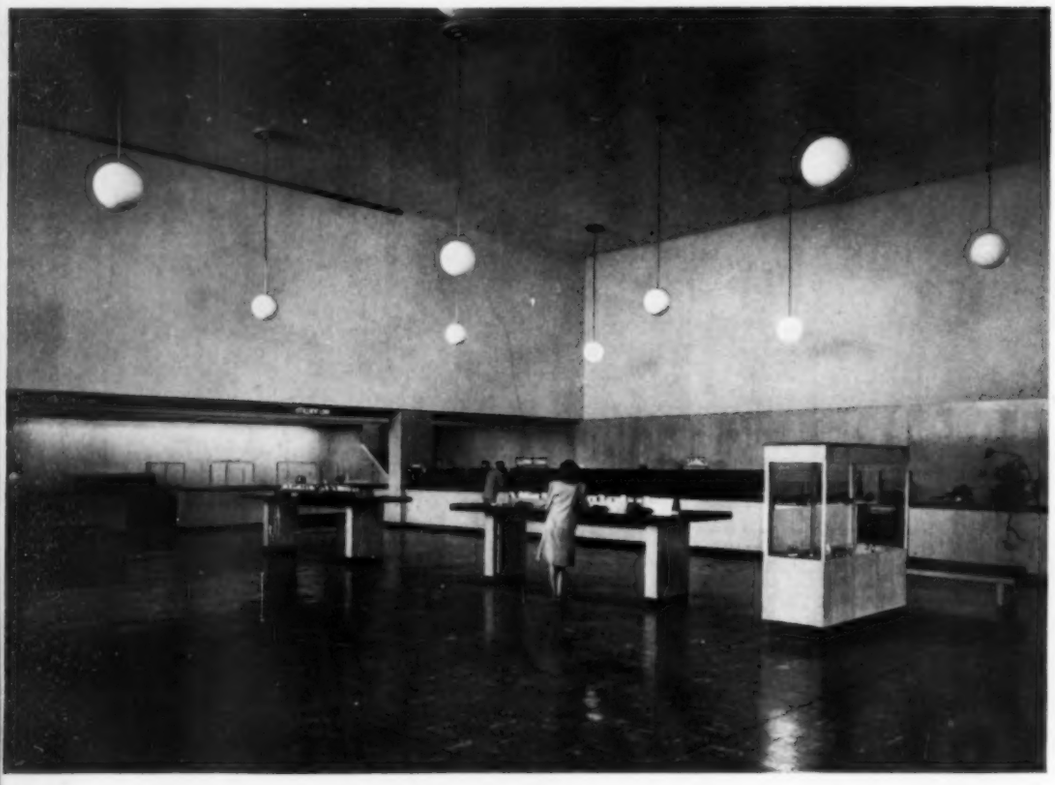
SITE: Prominent corner site in Oregon's capital city, with the front toward the west; the long street side, north.

SOLUTION: Straightforward U-shape plan scheme, with entrance doors on center; mezzanine work space above rear of main floor; basement area for safe-deposit-box customers, vaults, storage, employee cafeteria, and mechanical rooms.

In documenting contemporary work, interest so often centers on intelligent use of new materials that one tends to overlook the fact that today's design palette includes all the time-honored materials as well. The exterior treatment of this bank building is a notable reminder—wall surfaces of granite (at the base) and marble (above). But it is important to note that these august stones are here employed in a wholly contemporary way—thin slabs applied as a veneer or surface skin, a use that is frankly emphasized by the alignment of joints.



Top: view from northwest. Center: entrance front; sculptures by Frederick Littman. Below: north windows. *Photos above: Dearborn-Massar; below: K. E. Richardson.*



Above: banking floor looking southeast. Below: northeast view showing huge north windows. Birch paneling and plaster wall surfaces; rubber-tile flooring. *Photos: Dearborn-Massar.*

BANK, SALEM, OREGON

MATERIALS AND METHODS

CONSTRUCTION: Frame, walls and floors: reinforced concrete. **Exterior wall surfaces:** granite and marble; interior: plaster and birch paneling. **Flooring:** asphalt tile; rubber tile; ceramic tile. **Roofing:** built-up composition. **Fenestration:** bronze sash; double-insulating glazing; patterned glass; glass block. **Insulation:** acoustical: ceiling tile, plaster; thermal: wood-fiber insulation board. **Partitions:** hollow clay tile; metal toilet partitions. **Doors:** flush wood panel.

EQUIPMENT: Heating and air conditioning: automatic air conditioning system; oil-fired boiler; deep well and pump for cooling; automatic controls.

How Useful Are Standards?

BY THOMAS H. CREIGHTON

Every efficient architect or office manager or chief draftsman must wish at some time that design details as well as office routine could be standardized. Why is it necessary to detail a window every time one is used? Why can't such things as door jambs, roof overhangs, wall sills, and many other aspects and elements of a building be drawn on standard sheets which could be printed for each job where they are applicable? The possible saving in drafting-room time is enticing.

Let's go a little further. Why isn't it possible to use standard details for bookshelves, for library stacks, for hospital utility rooms, for school classrooms, for store fronts?

Let's carry it all the way. Aren't there usable standards for planning hospitals? Aren't there only a few room relationships possible in a small house, so that a few standard plans could become stock office merchandise? Can't apartment planning be reduced to several apartment types which can be adapted to almost any site?

The answer to all these questions is "Yes," and yet we know that there is a sensible limit to the use of standards beyond which all imagination and all progress ceases. It *is* ridiculous to ask the drafting room to go through the process of designing and detailing every time a standard problem comes up. And yet, a survey of a number of representative firms doing good work indicates that such a simple detail as a hinged window in a masonry wall is capable of improvement each time the problem is studied. If a standard office detail were used, most of these firms agree, the question never would be restudied, and any error of commission or omission in the first attack at the problem would be mechanically repeated as long as the "standard" were used.

That point of view seems to be borne out by experience in editing **P/A**'s continuing series of "Selected Details," which are in no sense standards. Similar design problems are illustrated month after month, year after year —and yet there is always a new, fresh solution. Why is this? Primarily because we gain in technical knowledge, and there are improvements in materials or in their possibility of coordination. One firm we questioned was violent on the subject, and expressed the wish that all standards could be outlawed, as standing in the way of design progress. Others, more temperately, pointed out that standards were useful but tended to substitute themselves for serious continued research and up-to-dateness in technical knowledge.

With regard to these office detail standards, there seems to be agreement in principle, if not in practice—they can serve a useful purpose if they are scrutinized each time they are used, and if they are completely restudied every so often. No one can quarrel with that conclusion, but one can be a bit skeptical; the scrutiny and the restudy may go by the boards when the office is busy.

When we come to the matter of planning standards of larger scope there is not even that area of agreement in the profession. The question comes down to this: do carefully studied standards, in school planning or hospital planning, or any other area of activity, prove their worth by raising the general level of design; or do they tend to become rigid rules instead of suggested criteria, and stultify the designer who might otherwise go on to

further study of the problem? Two reactions which mention specific cases typify the divided opinion. One is, "Would Kump & Falk or Perkins & Will have made the advances they have in school planning (advances from which others have profited) if they had followed previously developed standards?" The other point of view is expressed thus: "We would not have the high level of hospital planning that is evident at the present time if the USPHS standards had not been publicized."

It is possible to reply to both attitudes. The question seems to be whether a general, fairly rapid advance in planning a specific building type is more important that the encouragement of individual research and imaginative thinking. There are probably more schools being badly planned at the moment than there are hospitals being bungled, and that is undoubtedly due to the excellent USPHS type plans that are so widely known and used. Yet it can be pointed out that hundreds of hospitals all over the country are being designed much the same, with a blind adherence to the standards that are known to be good, and with little looking beyond them to discover what the next advance should be. Which is more important is a debatable social problem as well as an architectural problem. If we could have steady progress, with standards marking a minimum of accomplishment—a point of departure—that would be wonderful. But it is unfortunately true that minimum standards tend to become maximum goals.

This is not entirely an academic problem. In its day-to-day practice each firm must make certain decisions about the use of standards. The following are suggestions, which it is hoped will stimulate thinking on the subject and perhaps lead to some degree of clarification of a touchy subject.

1. Office standard details should probably be used by an efficient organization. In some fields of practice where profits are lean and every hour of drafting-room time is valuable—such as residential work—it seems a foolish waste of time to redraw standard repetitive details. However, it is suggested that these standards be kept in such a form that they can be traced rather than printed for each job. In this way there is more likely to be revaluation of the detail each time it is used—or at least those revisions can be made which are necessary to make it applicable to a specific job.

2. Standards in the planning of certain spaces within buildings should be used with care. It is probably necessary to keep a file of planning data—sizes of equipment, room required for certain functions, accepted space arrangements, etc., so that the planning and drafting parts of the office organization can refer to them readily. And yet the man in charge of a given job must make sure that the *latest* information is available. One trouble with an office file of planning standards is that it gets out of date very quickly, and the architect can make a fool of himself by basing a scheme on superseded data. Someone assigned to office research and the keeping up-to-date of the office data files can help solve this problem.

3. Each office must make up its own mind about the use of type plans for the design of entire structures. It would be absurd not to be familiar with suggestions that have been made with regard to the planning of various building types. If a man has never before designed a library, plans recommended by some of the library equipment companies might be helpful as a starting point. But obviously a much better beginning would be a study of function and flow within the library building, which is well documented in numerous publications of the American Library Association. How much time a busy architect can spend in research for each job is a matter he has to decide; a certain amount of homework in the form of reading selected from the many bibliographies now available is certainly as necessary as in any professional activity.

If this discussion can be summed up briefly, it might be by making the trite remark that no amount of standards or planning data can make a good architect out of a bad one; and no filing system no matter how carefully kept can act as a substitute for continued research and imaginative design.

Apartment Building, Montgomery, Alabama

CLYDE C. PEARSON & FARROW L. TITTLE, ARCHITECTS

PARKER A. NARROWS & JOHN H. HANCOCK, ASSOCIATES

A Mention in the 1947 P/A Awards (see comments on subsequent pages by Charles Abrams, housing expert, consultant, and lecturer).

PROGRAM: Apartment house built with an FHA-secured loan to accommodate about 70 families.

SITE: 211' x 287' lot in old neighborhood.

SOLUTION: Essentially five apartment blocks, four of them lined on an east-west axis (separated by courts); the fifth joining the two inner units at the rear. *Photos: Rodney McCay Morgan.*

How Good Is "Best" Under Title 608?

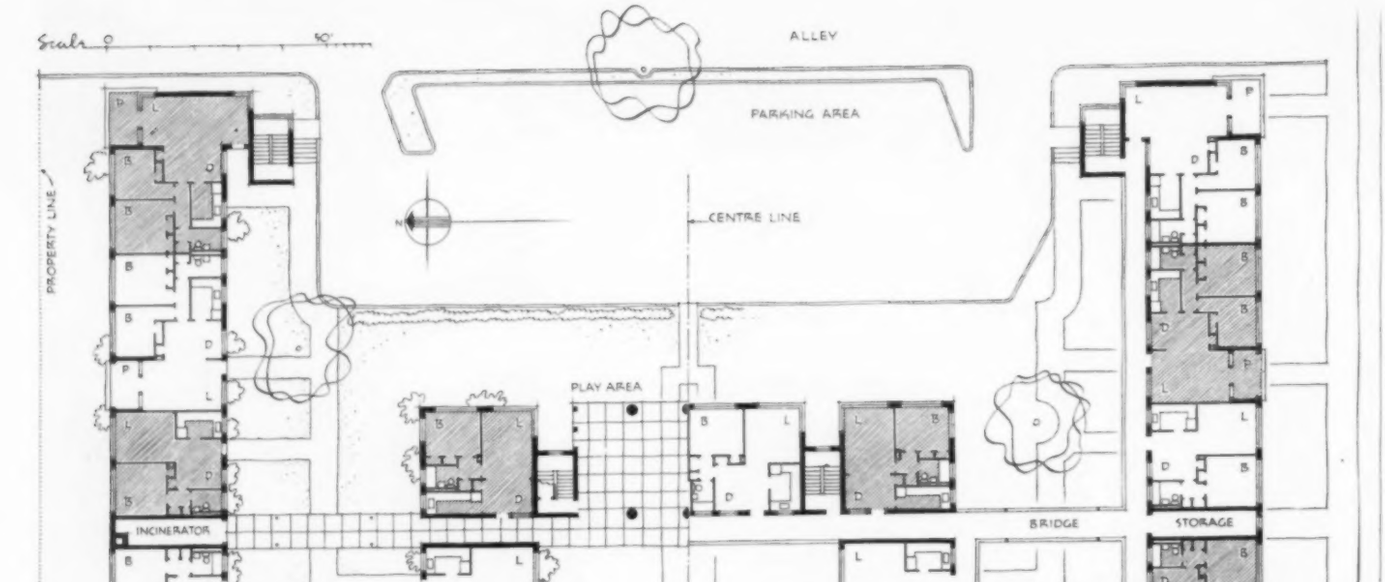
By CHARLES ABRAMS

Title 608 presupposes that in return for a 90 percent mortgage insured by FHA, a private builder will produce a dwelling of acceptable standard in which he will stake real equity money in a speculative, government-regulated venture for a return of about six percent.

Builders are hardheaded but not boneheaded! As any FHA builder will confide, the FHA formula is fashioned to let him bail out with his investment and a profit. To do this he selects the cheapest site and puts a building on it of minimum room sizes, minimum specifications, and minimum materials. He gives, and the consumer gets, precisely what FHA allows and expects—no more, no less. Regardless of the architect's talent, cube-cost measured against FHA allowance guides the blueprint. No mortgage lender would stake its own money on a Title 608 project, without the federal guarantee, and no sane investor would put up *real* equity money for a yield little more than that of the federally-insured mortgage.

Title 608 is public housing made possible by public underwriting of 120 percent of cost and substandardized to fit FHA requirements of "economy," and FHA's curious concepts of "private enterprise." But it is neither private nor enterprise—nor is it economic in the long run. Save for the general rise in building values, most Title 608 projects would

APARTMENT BUILDING, MONTGOMERY, ALABAMA



One half First Floor

One half Upper Floors

today be resting in FHA's foreclosure portfolios.

I have less criticism of the plan illustrated here than I have of the Award. The architects at least did the best they could within the limits of the FHA straightjacket. But the **P/A** Awards Jury was not so constrained. By crowning this project you ratify the whole pattern of self-delusion and substandard construction on which the FHA formula is based.

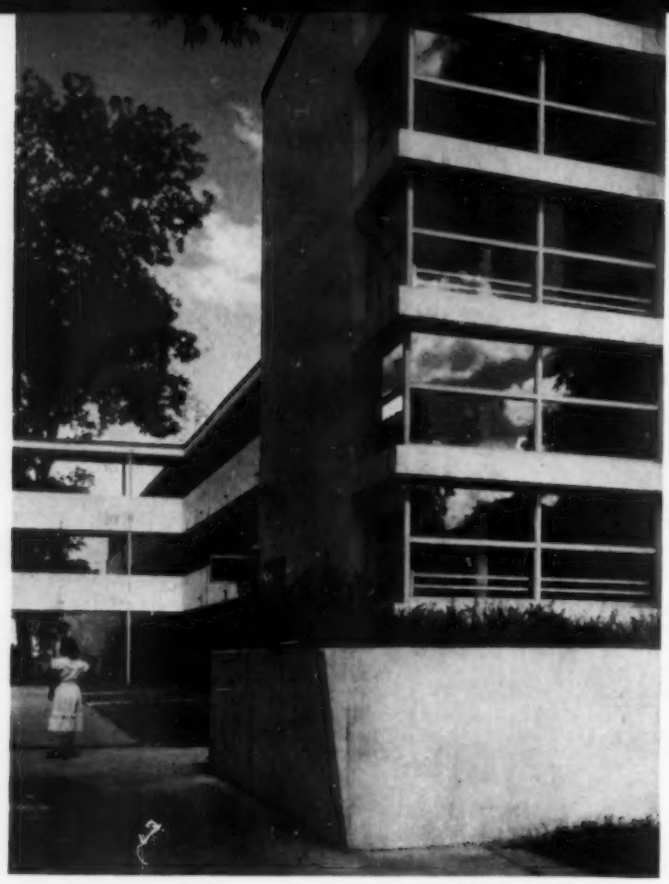
Any architect can win first prize, hands down, if FHA liberalizes its rules to usher in a prize-winning plan, or if the architect baits an investor who happens to be sucker enough to put up some real risk money. But, with these exceptions, an architect who can turn out something decent under Title 608 deserves not a prize but canonization, for he would be performing a miracle.

You might answer that this plan is good within its limitations. The outside walk, for example, saves stairway space. But in return you get a long walk to the stairways and some sacrifice of privacy. The dining room serves as the foyer. The terraces are fine if FHA allows money for them under its curious "room count." The living room is only 11′6″ x 14′; bedrooms 11′6″ x 12′; closet space only 19 square feet. There's no mystery about this plan, only a few variations and some good photographs. But that's not good enough. The Award sanctions substandard housing and encourages more of it.

In 1879, another respectable technical journal held a contest in New York City for the best design of a tenement 25′ x 100′. The judges included a team as distinguished as yours—an architect, a college professor, the president of the Board of Health, and two ministers. The now famous "dumbbell tenement" (so named not after the winning architect, or the judges, but the shape) won the prize.

One of its innovations was a light shaft, in exchange for which the tenant got a smell of his neighbor's cooking and a glimpse of his private life. Merit in those days (as in Title 608 projects today) was judged mainly by maximum income and minimum outlay. The "dumbbell" won because it piled the maximum number of rent-paying mortals onto a minimum lot. The "dumbbell" was outlawed just two decades later; yet New York's citizens today pay the price for the hovels that shot up in the interim.

You and your jurors are guilty of the same mischief. Instead of condemning the FHA formula and the cubbyhole civilization it authorizes, you encourage it by giving a Mention to one of its projects simply because it happens to be better than others of the same substandard variety.



APARTMENT BUILDING, MONTGOMERY, ALABAMA

Among the plan highlights that led P/A's 1947 Jury of Awards to give this apartment group a Mention are: cross ventilation for each apartment; individual exterior entrances; light and air; service rooms facing service rooms; living side facing living side; unusual storage space (the basement area provides an additional 6′ x 8′ storage "vault" for each apartment); play space for children, including some covered area; and on-site parking for tenants' automobiles. Many of these advantages derive from the architects' initial decision to develop narrow (one apartment deep) blocks, with exterior balcony-walk access. True, this means that most tenants have to pass by the apartments of other tenants to reach their own, but the architects note that "all windows along the corridor balconies are of the high transom type," and hence interference with privacy is at a minimum. On the roof deck of the central (rear) block is the building laundry, with access from either one of two stairways. Here are automatic washing machines, driers, and ironers available to tenants on an hourly rental basis.

The building is completely fireproof (see construction outline on page 61) and has been awarded the lowest fire insurance rating of any building of its class in the city. Heating is accomplished by individual gas wall furnaces, and each apartment has its own gas and electric meters.

In his discussion of this project (see page 58) Abrams comments: "The architects did their best within the limits of the FHA restrictions." In general, the architects say that working relations with FHA authorities were entirely felicitous. But they mention two official requirements that they feel were definite hindrances to the design. They would have liked to have all living rooms of apartments in the east-west axis blocks face south. However, FHA required that "service" elements face "service" elements. The result: many of the living rooms in these blocks then face north instead of the more favored direction. The other restriction the architects found to be an obstacle was the requirement that in a one-bedroom apartment there had to be a definite dining-room square-footage area, with wall projections that clearly divide it from the living area. As they say: "These one-bedroom apartments would have been more livable had the dining area been less, the living area more, and the 'projections' for definition of areas eliminated."

Top: view into end court; glass-enclosed stairwell, right. Center: tiers of covered walkways connect end blocks with central units, making it possible (along with the eight stairwells) to go under cover from one apartment to any other. Bottom: looking out from covered play space into central courtyard. Photo across page: on-site parking space at the rear of the buildings.

MATERIALS AND METHODS

CONSTRUCTION: Framing: Concrete. **Walls:** clay brick and clay tile; exterior: painted brick; interior: plaster, painted. **Floors:** reinforced concrete and tile slab, finished with asphalt tile, ceramic tile (bath floors) or left plain (balconies). **Roof:** reinforced concrete and tile slab, surfaced with built-up tar and gravel roofing. **Fenestration:** steel sash; casements glazed with SSA; fixed glass, plate. **Insulation:** Acoustical: 2" air space between solid plaster partitions between apartments; thermal: ½" plank over roof slab. **Partitions:** 2" solid plaster. **Doors:** wood, flush panel.

EQUIPMENT: Heating: Individual gas-fired wall furnaces; thermostatic control. **Electrical:** rigid conduit; ceiling type lighting fixtures (interior); globe type (balconies); range, refrigerator and water heater. **Plumbing:** copper-tube piping for water and gas; cast iron and terra cotta for sewers. **Special equipment:** automatic washing machines, electric ironers, and driers for top-floor laundry.

All four men concerned with the design of the apartment building are registered architects—Pearson in Georgia, Florida, and Missouri, in addition to Alabama. Clyde C. Pearson *(top left): Ala. Polytechnic Inst.; 22 years' experience, holder of numerous distinguished posts—presidency of the Ala. Society of A.I.A., secretary-treasurership of the Ala. State Board for Registration of Architects, and (most recently) Director, Montgomery Chamber of Commerce.* Farrow L. Tittle *(top right): Southern Methodist U.; M.I.T. (2-year scholarship); 18 years' experience. Vice-president, Ala. Society of A.I.A.; general manager, Ala. Architects Home Plan Service.* Parker A. Narrows *(bottom right): Ala. Polytechnic Inst.; 8 years' experience. Secretary, Ala. Society of A.I.A.* John H. Hancock *(bottom left): Columbia U.; 20 years' experience. Treasurer, Ala. Society of Architects, A.I.A.*

Art School, Kansas City, Missouri

RUNNELLS, CLARK, WAUGH & MATSUMOTO, ARCHITECTS

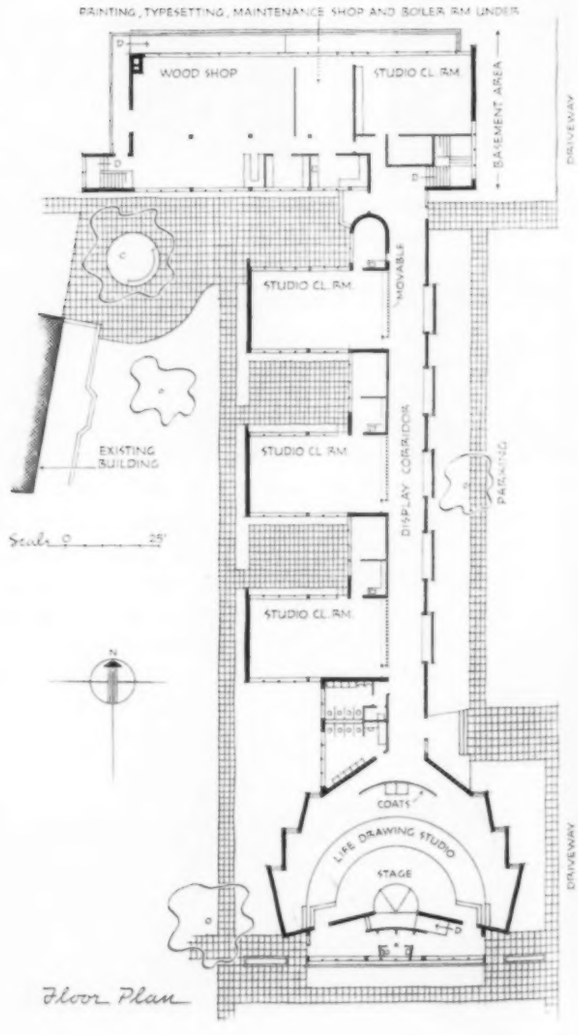
A Special Citation in this year's P/A Awards, this building for instruction in commercial art and industrial design is the first of a series of new buildings planned for the Kansas City Art Institute.

PROGRAM: Art studios, classrooms, workshop, and exhibition facilities for students of life drawing and the commercial and industrial arts.

SITE: A long, level site on a north-south axis with existing buildings of the Institute near by.

SOLUTION: Alignment of the building along the main axis, with the large life-drawing studio at the south end, individual classroom units projecting out to the west of the long display corridor (thus gaining north-south orientation), and a two-story unit at the north end, with industrial-design classrooms on the upper floor; rooms for painting, typesetting, and service areas, downstairs.

Approach to the design problem was begun by developing an ideal studio classroom unit; then a series of different schemes was studied incorporating the studios in various plan arrangements, utilizing different structural systems, etc. Undoubtedly, a site with a major northern orientation would have presented a simpler design problem; but the plan as developed employs a pavilion-type scheme and numerous ingenious design and structural devices to provide optimum north light despite site limitations.



Across page: general view from southwest: studio-classrooms, left; large studio, right. Left, top: north wing of building (industrial-design classes); below: exterior of north-south corridor. See details of projecting display cases below.

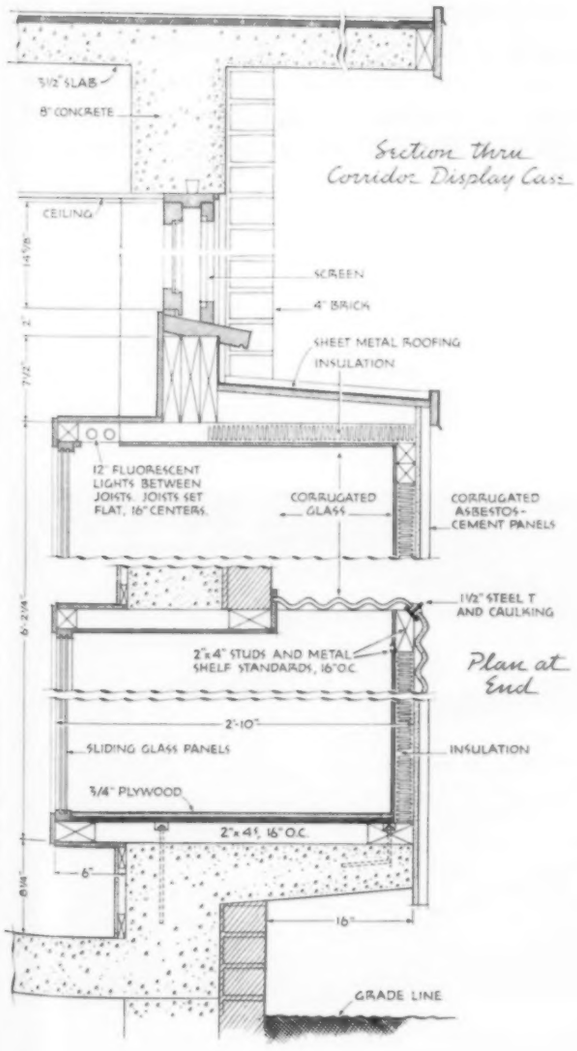
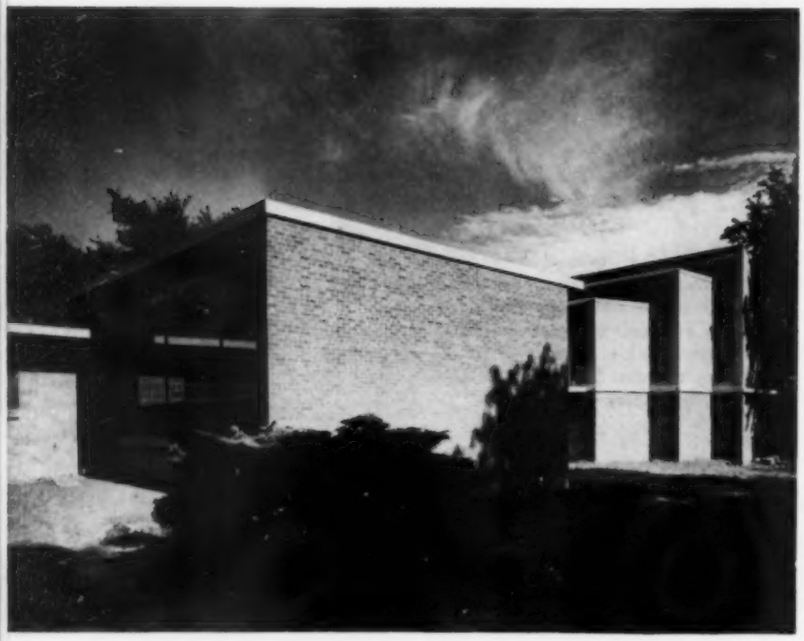
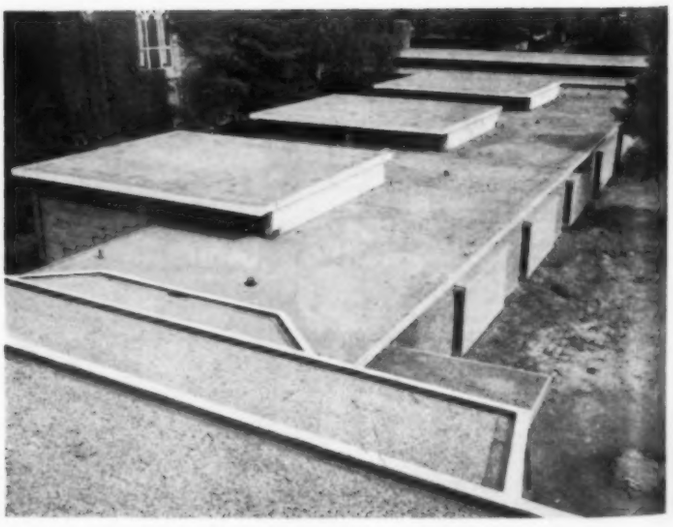


Photo above: display corridor; projecting daylighted display cases, at right; walls of movable lockers (at left) make it possible for special exhibits to extend the corridor space to include one or more of the rooms at the side. *All photos by Fred Gund.*



The two major instruction units—the individual studio-classroom and the life-drawing studio to accommodate 150 students—are shown on these two pages. In each case, the shape, placement, and structural enclosure are worked out to provide the best possible light conditions. In the classroom unit, the block extends west from the display corridor; the northern window wall includes a door to an outside terrace. Beneath the windows (on the exterior) are ventilating louvers and (on the interior) in-opening panels to admit fresh air. Balancing this is a high, clerestory band on the south that provides cross ventilation. End or western walls of the room are windowless. To provide good north light for the large life-drawing studio, the architects developed a room that steps out in plan and upward in section. Night light is provided by continuous ceiling channels in both downlighting (cold-cathode) and cove troughs (incandescent or fluorescent). The entire building is concrete framed, with brick and lightweight concrete-block filler walls. The exterior surface of the upper portion of the large studio and some trim is of limestone—to "harmonize" with existing classical and collegiate gothic buildings. The heating scheme consists of a split system of radiant floor slabs and warm-air via grilles from floor tunnels.

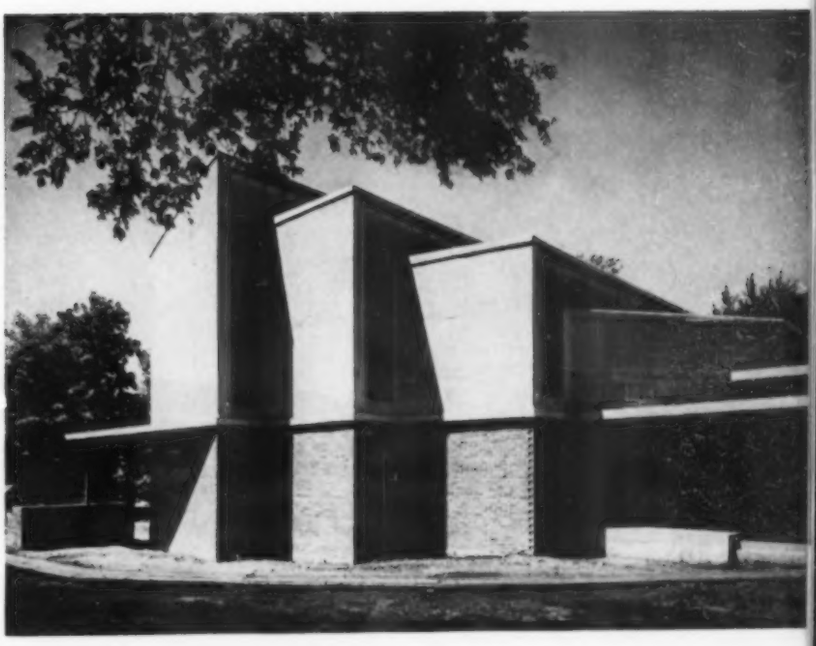
Top: exterior of one of the west-projecting studio-classrooms; large studio in background. Below: interior of studio-classroom. Cold-cathode tubing occurs in the concrete roof-joist panels. At right: roof pattern, toward northwest.

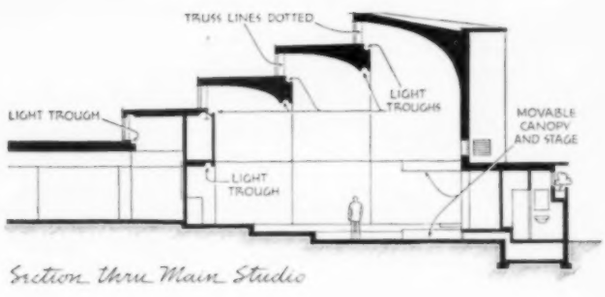


MATERIALS AND METHODS

CONSTRUCTION: Framing: reinforced concrete, with steel trusses and bar joists. **Walls:** lightweight concrete block, with brick, limestone, or corrugated asbestos exterior surfaces; interior surfaces: concrete block left plain; asbestos-cement panels. **Floors:** reinforced concrete, surfaced with asphalt tile. **Roof: concrete; steel** deck and bar joists. **Fenestration:** wood and steel sash; ¼" double strength glass; corrugated glass. **Partitions:** lightweight concrete blocks; metal toilet partitions.

EQUIPMENT: Heating, etc.: split system of radiant slab and warm air; oil-fired, boiler; automatic controls. **Electrical:** recessed incandescent and fluorescent fixtures; exposed units, cold-cathode.

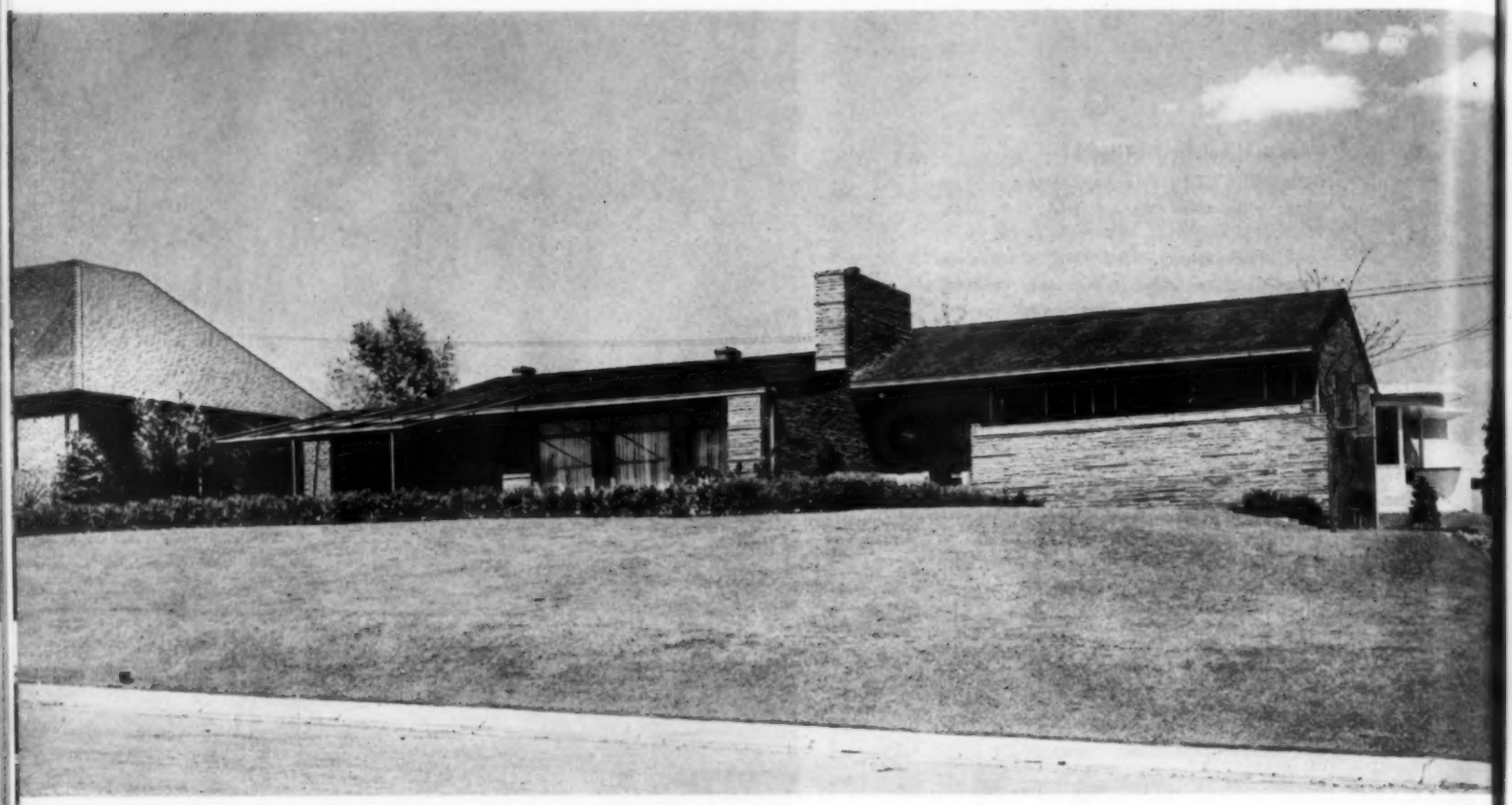




Section thru Main Studio

Top: by stepping the structure outward and upward, continuous, U-shaped bands of north windows are provided for the life-drawing studio. Below: studio interior; the floor steps down to the platform giving each student an unhindered view. Model stand may be subdivided for separate student groups by means of hinged panels.

David B. Runnells (Top, Left): U. of Illinois; extensive European travel; study at U. of Stockholm and Cranbrook Academy of Art; work in Denver and Detroit offices. James I. Clark *(Below, Left): B. S. Arch., U. of Mich; worked in Tulsa and St. Louis before opening own office in Kansas City.* Edward Waugh *(Below, Right): U. of Edinburgh; Cranbrook Academy of Art.* George Matsumoto *(Top, Right): Trained at George Washington University (architecture) and Cranbrook (city planning).*



House, Denver, Colorado

EARL & ROBERT MORRIS, ARCHITECTS

PROGRAM: A home for a family consisting of parents and two children; provision for one servant. Desire for sufficient flexibility to accommodate occasional large gatherings as well as everyday activities of family living.

SITE: An up-sloping, northeast, corner lot, with a splendid view of the city of Denver and the Rocky Mountains to the west.

SOLUTION: Alignment of rooms so that all main areas share the view, with window walls to the west, shaded by deep reveals. The slope of the site made it possible to place the garage, children's playroom, etc. in an above-grade semi-basement. Bedrooms above this wing are raised a few steps from the main living floor. A folding case between the living and dining ends of the main living room provides partitioning for the dining area for family use or (when folded back) creates one general space for entertaining.

MATERIALS AND METHODS

CONSTRUCTION: Concrete slab on ground where there is no basement. **Walls:** brick or stone-bearing walls; interior surfaces: stained plywood or plaster. **Roof:** wood shingles. **Fenestration:** steel sash; double strength glass; plate glass, in large areas. **Insulation:** wool type in ceilings.

EQUIPMENT: hot water heating system.

Photos at left: top: view from dining area through to living room; bottom: opposite view, showing hinged case at right that can be swung around to join the two areas. General view of house across page shows the advantageous hilltop site. *All photos: Fred Gund.*

Earl Morris (Left): B. S. Arch., Columbia; chief designer with M. H. Hoyt of Denver. Firm of Frewen & Morris, 1935-39. Robert Morris (Right): Columbia School of Arch.; work in various Denver firms, including Frewen & Morris. Associated with Earl C. Morris since 1939.

MATERIALS AND METHODS

Porcelain Enamel Institute Standards Simplify Specification Writing

For the protection of the architect specifying architectural porcelain enamel, of the ultimate owner of a porcelain-enameled building, and of the dependable reputation of this building material, the Architectural Division of the Porcelain Enamel Institute has established among its members "Standards for Manufacture of Architectural Porcelain Enamel." All architects are encouraged to take advantage of this voluntary action by requesting adherence to Architectural Division Standards in their specifications.

BY EDWARD MACKASEK*

Above, exterior and, at right, interior of tower showing extensive framing. Entire surface, including sign letters, is porcelain enamel; Charles N. Agree, architect.

Upper left, high school building; lower left, supermarket in San Leandro, Calif.; both are surfaced with porcelain-enamel sheets.

Architects needn't be porcelain enameling experts to specify architectural porcelain enamel for any sort of building construction—interior or exterior. The fundamental characteristics of the material, which are primarily dependent upon manufacturing practices, are of the utmost importance to successful architectural use, yet are likely to prove troublesome for the architect to specify properly without guidance. In order to make the architect's job easier and at the same time assure him a building material of consistently high quality, the Architectural Division of the Porcelain Enamel Institute has established among its members "Standards for Manufacture of Architectural Porcelain Enamel," a set of precise, basic regulations governing the manufacturing procedures upon which product quality depends. All the architect has to do is to specify that these standards shall be followed and, if his material is purchased from a member of the PEI Architectural Division, they will be followed.

When an architect specifies his architectural porcelain enamel "according to PEI standards," here is what he gets:

Detailed shop drawings of the porcelain-enameled parts

It is unnecessary for the architect specifically to detail the parts required for the assembled job. Any member of PEI's Architectural Division will supply all necessary details in the form of shop drawings, which will show dimensions, bends, special and regular attachments, design layouts, holes, finishing instructions, etc.

Proper packing for shipment

Packaging porcelain-enameled panels for shipment may not be necessary when transportation is by company or special truck. When it is required, however, enamelers adhering to PEI architectural standards will so pack their finished material that it will arrive at the destination in good condition.

Base metal especially manufactured and processed for the production of architectural porcelain enamel

Architectural Division standards call for the use of "enameling iron or steel"—sheet metal of low metalloid and copper content, having chemical and physical

* Managing Director, Porcelain Enamel Institute

properties particularly suited to porcelain enameling operations.

While enameling stock is desirable for best results, it is currently in very short supply. To avoid long delays in manufacture the architect and contractor may, if they mutually agree to deviate from the PEI manufacturing standards, use the more available cold-rolled stock. However, any variations from the base metal standards should be carefully checked in relation to the remainder of the specifications and any changes in specification provisions noted in writing.

Proper design and fabrication techniques

Manufacturers conforming to PEI standards are governed by the design and fabricating principles established in the PEI handbook *Design and Fabrication of Metal Parts for Porcelain Enameling* (current edition). All parts must be designed in accordance with sound engineering principles and must conform to proved practice in porcelain-enamel construction. Good quality dictates that they shall be fabricated in uniform, workmanlike manner. Included in the requirements of good fabrication are proper radii of flanges, sound welding, close tolerances, avoidance of heavy sections, etc.

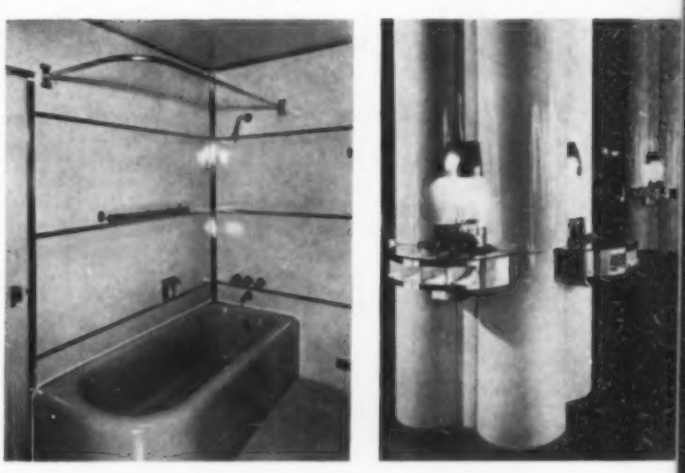
Location of the joints which determine the panel sizes and shapes, so that they will give a pleasing proportion to the finished structure, is usually the function of the architect or designer. They should be discussed with the enameler, however, to be sure they meet his manufacturing tolerances.

Methods of attaching porcelain enamel

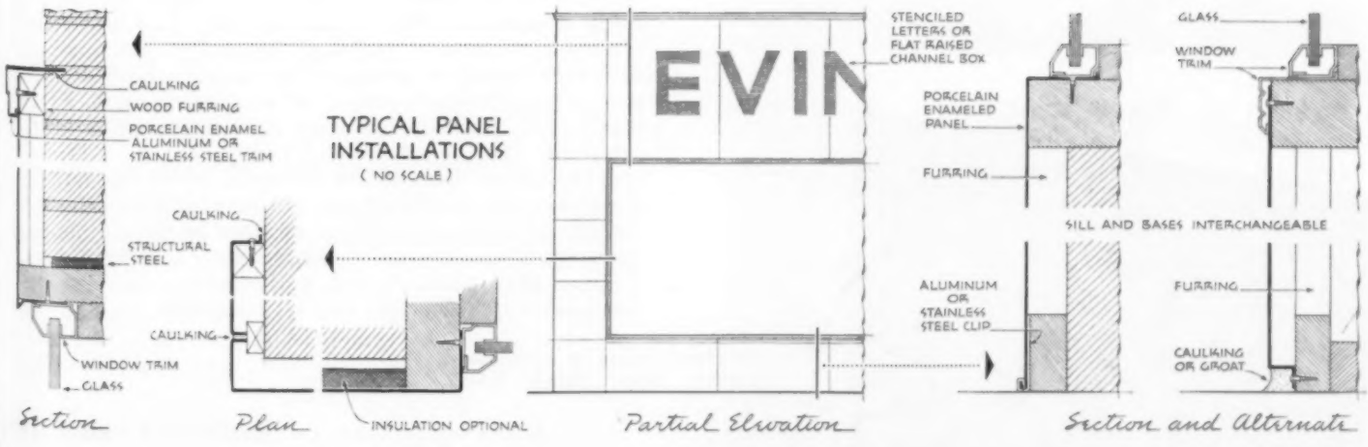
While there is no standard method of attaching porcelain-enamel panels to the structure, methods used by different porcelain enamel manufacturers are alike in that they all provide positive, accurate, lasting fastening which is invisible after erection.

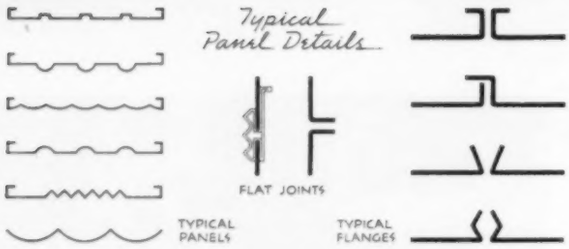
In designing porcelain-enamel parts, requirements for expansion and contraction are taken into consideration. However, when the design of the part is affected by requirements imposed by other trades such as providing for holes for electrical fixtures, sign attachments, ornamentation, etc., such information must be supplied to the manufacturer in advance of the fabrication, as it is not a recommended practice to cut or drill porcelain enamel after it has been finished.

Interior, Lustron all-porcelain-enamel surfaced prefabricated house. Interior surfaces are matte finished; wall panels grooved to help conceal joints.



Methods of jointing interior porcelain-enamel surfacing: Left, with stainless-steel moldings; right, vertical joints concealed in returns, horizontal joints molding covered, at free-standing columns in a bank.

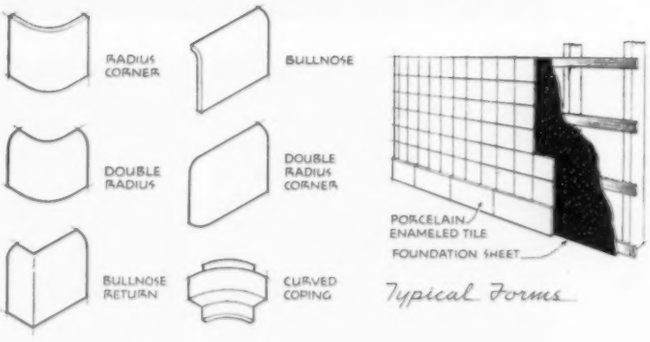


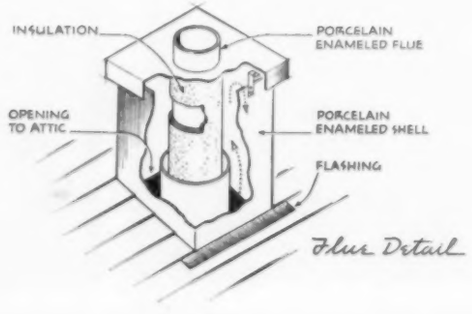


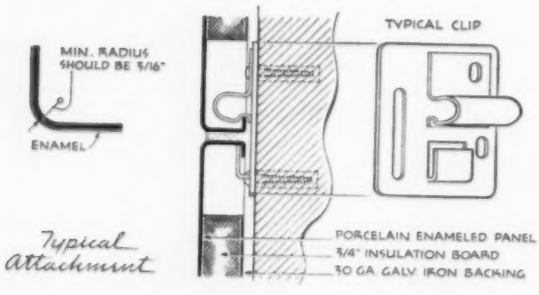
TYPICAL PORCELAIN ENAMEL DETAILS

The following table indicates sheet iron gages usually recommended for architectural porcelain-enamel panels of various sizes. Embossing, fluting, beading, etc., influence determination of proper metal gage.

Panel Length	*Width*	*Min. Gage*
Under 24 in.	12 in.	22
24 to 32 in.	12 to 20 in.	20
32 to 60 in.	20 to 26 in.	18
5 to 8 ft	26 in. to 3 ft	16







Porcelain-enamel mural, on a restaurant in Cleveland, Ohio; Edward Winter, muralist.

Caulking between joints to provide positive weatherproofing is, of course, a vital factor. Manufacturers of architectural porcelain enamel have given long study to this problem and are prepared to recommend suitable compounds for this purpose.

Weatherproof porcelain enamel

PEI standards for porcelain-enamel finish require a coating capable of meeting the severe conditions imposed by long outdoor exposure. All porcelain enamels are compounded of inorganic materials and are highly resistant to corrosion, abrasion, fading, and general exposure to the elements. However, some porcelain enamels possess these qualities to a greater extent than others, and the porcelain enamels intended for exterior architectural use are selected for their exceptionally high resistance to all forms of weathering.

For assuring a quality of porcelain enamel finish that will provide the long life demanded in architectural service, a special *Weathering Test for Architectural Porcelain-Enamel Parts* has been adopted by the Architectural Division of the Porcelain Enamel Institute as a provision in its specifications. Porcelain enamel that will conform to this weather test can be depended upon to resist atmospheric corrosion in all climates and in all temperature ranges.

Proper application of the porcelain-enamel finish

PEI standards require proper preparation of metal prior to enameling, proper coverage of panels on all exposed surfaces, proper coating thickness, panel flatness, uniformity, and freedom from surface defects.

Specified colors and textures

Members of the PEI Architectural Division will provide colors and surface textures to conform to the architect's or purchaser's specifications within the limits governing production of architectural porcelain enamel.

Each manufacturer has a wide range of standard colors from which the architect can choose, and will furnish samples on request before processing has begun. The architect may specify a flat color, stipple finish, speckle finish, or decorated two-color finish. He may also specify textures of full gloss, full matte, or semi-matte. (Colors in full matte are not recommended for exterior architectural application.) Letters and trademarks in single or multicolors can be readily incorporated in the design, or they may be made as separate parts and attached during assembly.

Included in proposals and quotations from members of the PEI Architectural Division will be reference to a *Statement of Compliance*—a guarantee by the manufacturer to the Institute that he will follow the foregoing established PEI standards. Any architect can specify architectural porcelain enamel of the quality described simply by incorporating in his specifications the phrase, "manufactured in accordance with PEI standards." No manufacturing details covered by PEI standards need be otherwise specified.

On request, from either the architect or the building owner, the manufacturer will furnish the uniform, signed certificate of quality prescribed by the Architectural Division. The certificate is simply a written declaration that material and workmanship conform to the quality specifications of PEI standards.

Selecting Automatic Anthracite Heating Equipment for the Average House

BY NORMAN C. CURTIN*

In recent years considerable information on anthracite-fired heating plants has accumulated and heating unit design has been improved. Although information on all this has been available, it has not been obtainable in one piece. The following survey brings the parts together in sequence: 1, Heater Requirements; 2, Chimney Design; 3, Fuel Bins and Ash Disposal; 4, Fuel Size; 5, Heating Cost; 6, Types of Automatic Heaters and Controls. The survey is limited to house heating *(space heating, cooking, and domestic water heating are not covered, nor are commercial heating and power equipment); data are applicable to air, steam, or water systems. The aim is to help the designer meet the requirements of each individual house—an important objective considering that, of the five million existing houses heated by anthracite, many are being modernized, and that new house building continues to bulk large.*

1. DETERMINING HEATER REQUIREMENTS

Modern anthracite heating starts with the determination of the heat loss of the individual house. Four related factors supply the formula which may be accurately applied under any circumstances for this calculation. Regardless of choice of heating system or degree of automatic performance the client prefers, this is fundamental.

The Four Related Factors

Factor	Based On
1. Heat Loss	*1. Design temperature of system* *2. Minimum outside temperature of locality* *3. Established heat loss factor of construction material*
2. Piping and Pickup Loss	*Allow 30%*
3. Fuel Heating Values and Boiler-heater Efficiency	*13,000 Btu per pound 70% efficiency (average with thermostatic controls)*
4. Grate Area of Heater (maximum)	*5 lbs per sq ft per hour (up to 4 sq ft grate area)* *7 lbs per sq ft per hour (over 4 sq ft grate area)*

The Four Factors Make These Formulae

When the heat loss is LESS THAN 120,000 Btu/hr:

GRATE AREA OF HEATER (sq ft) should equal $\frac{\text{Total Heat Loss}}{35{,}000}$

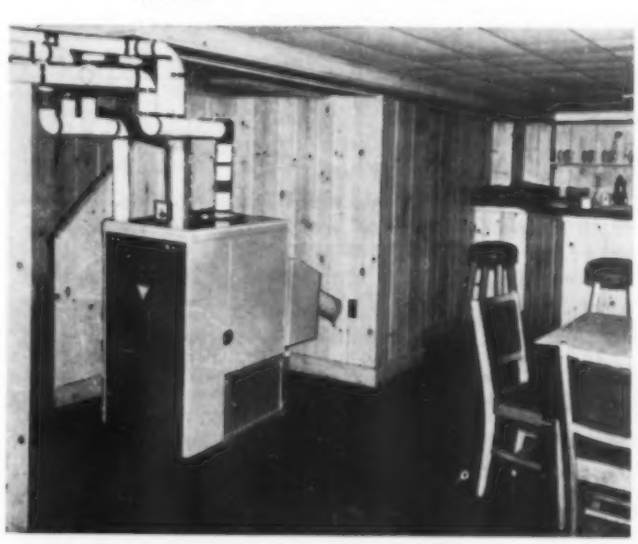
When the heat loss is MORE THAN 120,000 Btu/hr:

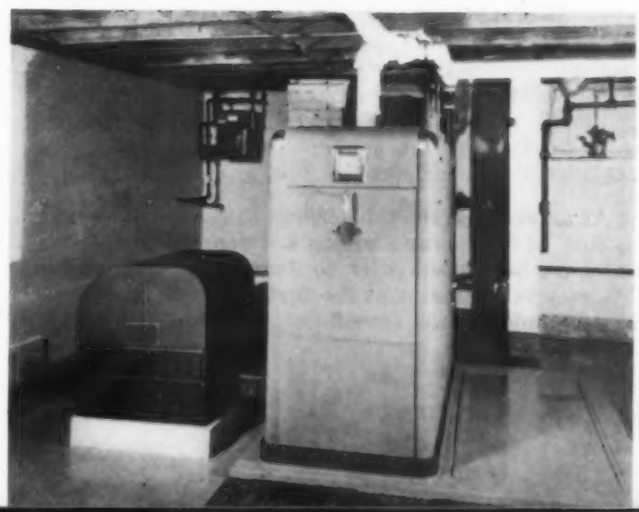
GRATE AREA OF HEATER (sq ft) should equal $\frac{\text{Total Heat Loss}}{49{,}000}$

2. CHIMNEY DESIGN PROPORTIONED TO HEATER

Capacity adequate for the heater is the first requirement in chimneys. Local Building codes may also affect chimney design. For optimum results design with a separate chimney flue and no vents from other home appliances. While individual manufacturers supply cross-sectional areas and chimney heights for specific units, the standard table overpage provides a guide.

Top, the new Anthratube, characterized by: small size (24 x 31 x 42" with jacket); high efficiency; fully automatic operation; dustlessness. Below, stoker and boiler, bin feed, automatic operation, spill-over ash removal to vault at right; for other types see text.





* Supervisor of Field Representatives, Anthracite Institute

Recommended Minimum Chimney Sizes for Heating Boilers and Furnaces

Warm Air Furnace Capacity in Sq In. of Leader Pipe	Steam Boiler Capacity Sq Ft of Radiation	Hot Water Heater Capacity Sq Ft of Radiation	Nominal Dimensions of Fire Clay Lining in Inches	Rectangular Flue: Actual Inside Dimensions of Fire Clay Lining in Inches	Rectangular Flue: Actual Area Sq In.	Round Flue: Inside Diameter of Lining in Inches	Round Flue: Actual Area Sq In.	Height in Ft Above Grate
Up to	500	825	8 x 8	7¼ x 7¼	53			30
790	590	973	8½ x 13	7 x 11½	81			35
1000	690	1,140				10	79	
	900	1,490	13 x 13	11¼ x 11¼	127			
	900	1,490	8½ x 18	6¾ x 16¼	110			
	1,100	1,820				12	113	40

3. DESIGN OF FUEL BINS AND ASH DISPOSAL GUIDED BY HEATER REQUIREMENTS

Bin design must be related to fuel consumption of the heater, a full season's supply providing the optimum. In determination of fuel consumption the inconstant factor of the weather makes possible only an elastic formula:

Annual Fuel Consumption (tons) equals

$$\frac{\text{Degree Days (yr)} \times (F) \times \text{Heat Loss}}{2{,}000 \times 240}$$

in which (F) equals .01 with steam heat, or .00625 with gravity hot water.

Bin capacity should conform to the following limits in sizes when the amount of annual fuel consumption has been determined:

Volume of Anthracite by Sizes

Size	Cubic Feet per Ton: Minimum	Cubic Feet per Ton: Maximum
Egg	*33.9*	*38.7*
Stove	*33.7*	*39.2*
Chestnut	*33.2*	*39.2*
Pea & Smaller	*33.0*	*40.3*

Frequently used average weight and volume figures for all sizes of anthracite are 37 cu ft per ton and 54 lbs per cu ft.

The following figures, computed for Philadelphia and New York but applicable in general to anthracite territory, are of interest in showing the heating requirements in each month of a normal season as expressed as a percent of total annual requirements. The cumulative fuel requirements up to the first of each month are also shown.

Heating Requirements by Months

	Monthly Heat or Fuel Requirements	Cumulative to Last Day of Month
October	*5%*	*5%*
November	*12*	*17*
December	*18*	*35*
January	*20*	*55*
February	*18*	*73*
March	*16*	*89*
April	*9*	*98*
May	*2*	*100*

As an example the table shows that as of December 31, 35% of the heating season has passed, thus, if 3½ tons have been used prior to January 1, 6½ tons or 65% may be estimated as the further requirements for the remainder of the season.

Ash disposal may be effected in several ways: dustless containers, vault storage, dealer removal several times—or once—annually. A choice can be made after determination of ash volume.

Volume of Anthracite Ash

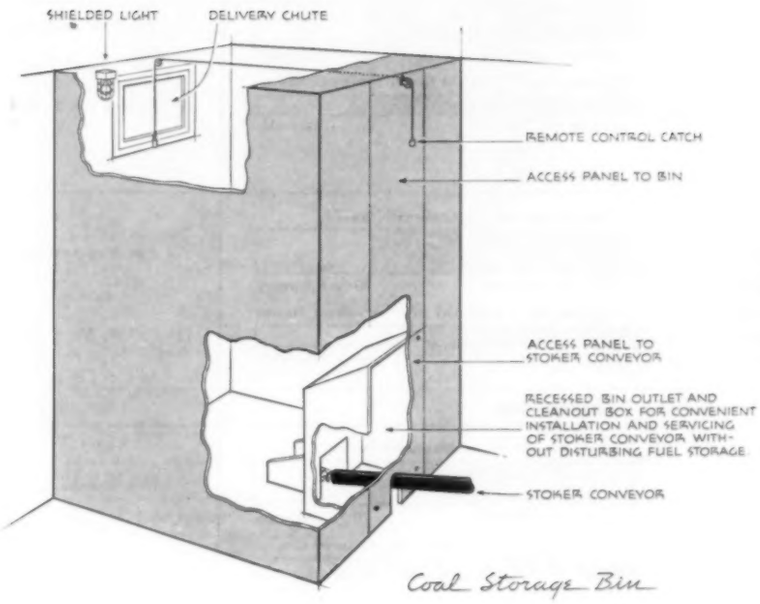
Volume of ash from a ton of anthracite ..... 9 to 12 cubic feet
Volume of ash from a ton of anthracite ..... 7 to 9 bushels

In planning for ash disposal, modern automatic equipment allows a variety of choice for convenience. Ashes ordinarily are conveyed by a worm or built-in tube to covered containers.

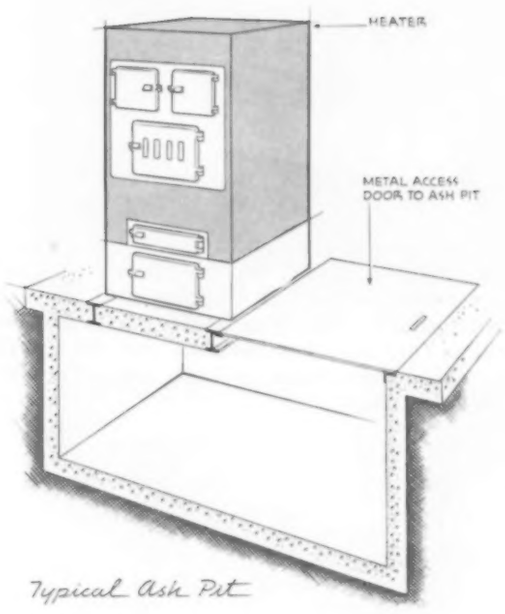
In planning for a new house, an ash vault in the basement floor can take the ashes without handling. Such disposal is dustless and permits arrangements for removal by the coal dealer at regular intervals as needed. Dimensions of the vault may be calculated from the formula for determining ash content. A vault capable of taking a full heating season's ash provides maximum convenience.

Another method is provided by worm conveyance to covered dustless containers of standard size which can be removed at more frequent intervals; in this case also, arrangements for ash removal can be made with the dealer.

The choices as to method of ash disposal are available with all types of anthracite equipment. Many heating units are designed for built-in, bushel-basket containers, removable without direct ash handling. Where dust presents a problem, ash sprays, fitted to the household water supply system, and operated according to the manufacturer's specifications, eliminate dust during process of disposal.


SHIELDED LIGHT
DELIVERY CHUTE
REMOTE CONTROL CATCH
ACCESS PANEL TO BIN
ACCESS PANEL TO STOKER CONVEYOR
RECESSED BIN OUTLET AND CLEANOUT BOX FOR CONVENIENT INSTALLATION AND SERVICING OF STOKER CONVEYOR WITHOUT DISTURBING FUEL STORAGE
STOKER CONVEYOR

Coal Storage Bin



Typical Ash Pit

4. CHOICE OF ANTHRACITE FUEL SIZE GOVERNED BY INDIVIDUAL HEATER REQUIREMENTS

All sizes of anthracite produce equal heat pound per pound but heater performance of maximum efficiency requires the suitable coal size. This is determined in proportion to:
GRATE DIAMETER—anthracite distributes large amounts of heat by lateral radiation; and
FIREBOX DEPTH—air flow to feed the fire is controlled by firebox depth.

Optimum Use of the Six Domestic Sizes

Egg is the largest size of domestic anthracite and it should be used in fire pots having a diameter or width of not less than 24 inches and a depth of at least 16 inches. The firing of this size in smaller furnaces, while justifiable in some instances, often results in an unnecessary ash-pit loss.

Stove coal is generally suitable for domestic heating plants where the fire pot is not less than 16 inches wide and 12 inches deep.

Chestnut is suitable for any boiler or furnace having a firebox 10 to 16 inches deep and up to 20 inches in diameter. Chestnut is also ideal for many types of kitchen ranges and service water heaters.

Pea coal frequently can be used to advantage when the boiler or furnace is considerably larger than necessary. This size can also be used in mild weather and for banking. Pea size can sometimes be substituted for the larger sizes without change to the furnace, providing extra care is used in shaking the grates, and adequate draft is available. It is also an excellent fuel for service water heaters and kitchen ranges.

No. 1 Buckwheat is the smallest size that can be burned with natural draft. It is not recommended for use where the chimney is less than 50 feet high, or where the heating plant is naturally overloaded. Although it is possible to fire buckwheat on large-mesh grates by carrying a layer of ashes below the active fuel bed, it is preferable to install fine-mesh grates. It is frequently used in magazine feed boilers, mechanical burners, and with forced-draft blowers.

No. 2 Buckwheat or **Rice** anthracite in domestic heating is used only with mechanical stoking devices.

No. 3 Buckwheat or **Barley** has no application in domestic heating, but is used extensively in manufacturing plants in connection with chain-grate stokers, where it is both economical and smokeless.

5. THE COST FACTOR IN HEATING WITH VARIOUS FUELS

The cost factor per heating season is often an important item in client considerations. Variables will change over a period of years and sometimes with communities, but "yardsticks" are available from which fuel cost comparisons can be completed for the chief house heating fuels burned under equivalent conditions.

yardstick number one	EQUIVALENTS (multiply by local current prices)
1 Ton Buckwheat in Anthracite Stoker	
equals 25,000,000 Btu (12,500 Btu per lb)	1 Ton Rice Anthracite
17,500,000 Net Btu — 70% Efficiency	equals
1 Gallon No. 2 Fuel Oil in Oil Designed Heater	162 Gallons No. 2 Fuel Oil
equals 140,000 Btu	
108,000 Net Btu — 75% Efficiency	
yardstick number two	
1 Ton Buckwheat in Anthracite Stoker	
equals 25,000,000 Btu (12,500 Btu per lb)	1 Ton Rice Anthracite
17,500,000 Net Btu — 70% Efficiency	equals
1 Gallon No. 2 Fuel Oil in a Converted Heater	184 Gallons No. 2 Fuel Oil
equals 140,000 Btu	
95,000 Net Btu — 65% Efficiency	
yardstick number three	
1 Ton Buckwheat in Anthracite Stoker	
equals 25,000,000 Btu (12,500 Btu per lb)	1 Ton Rice Anthracite
17,500,000 Net Btu — 70% Efficiency	equals
1 Cubic Foot of Domestic Manufactured Gas	41,500 Cubic Feet of Gas
equals 540 Btu	
421 Net Btu — 78% Efficiency	

Other "yardsticks," such as hand-fired or anthratube heating costs, can be added to these.

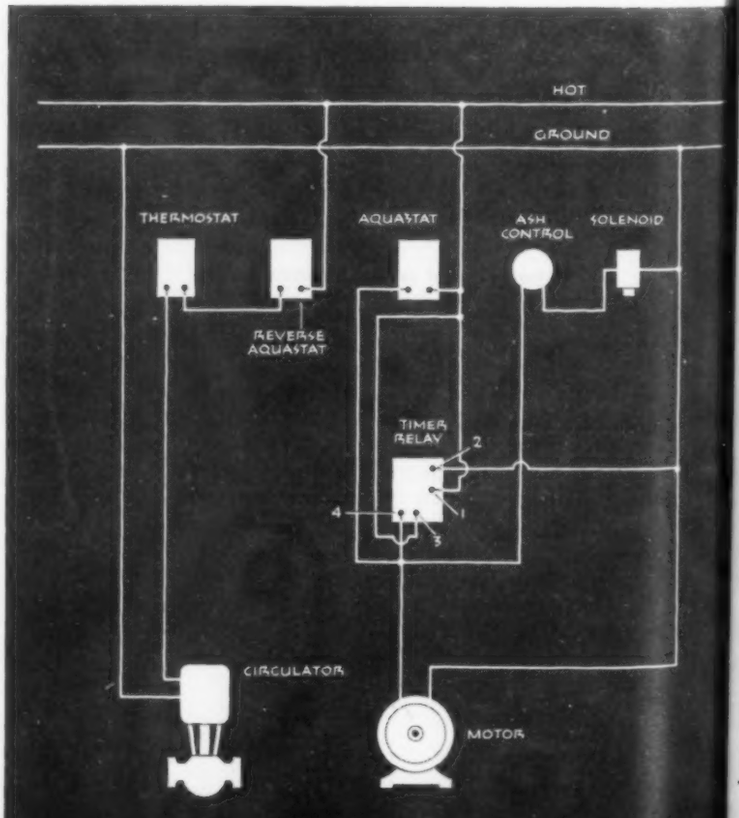
6. CHOICE OF ANTHRACITE EQUIPMENT FOR INDIVIDUAL HOUSE AND OWNER . . . The Anthratube

A logical development in the trend toward completely automatic hard coal heating, this boiler-burner unit combines overfeed stoking with a new principle: that small amounts of anthracite burned rapidly in small combustion areas produce heat with highest efficiency. Unit feeds pea coal automatically. Because of unconventional designing, conventional formulas do not apply to the anthratube, but heater sizing can be determined simply:

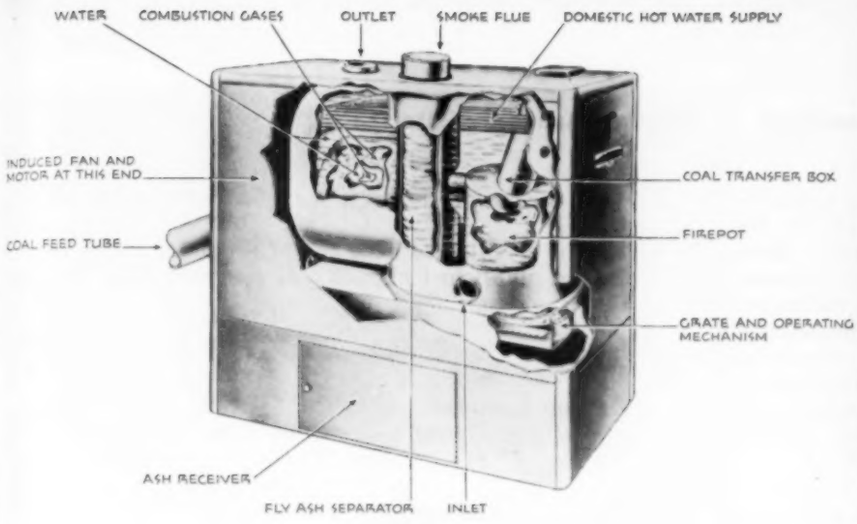
Apply to any type of radiant heating system for houses needing up to 130,000 Btu per hour.

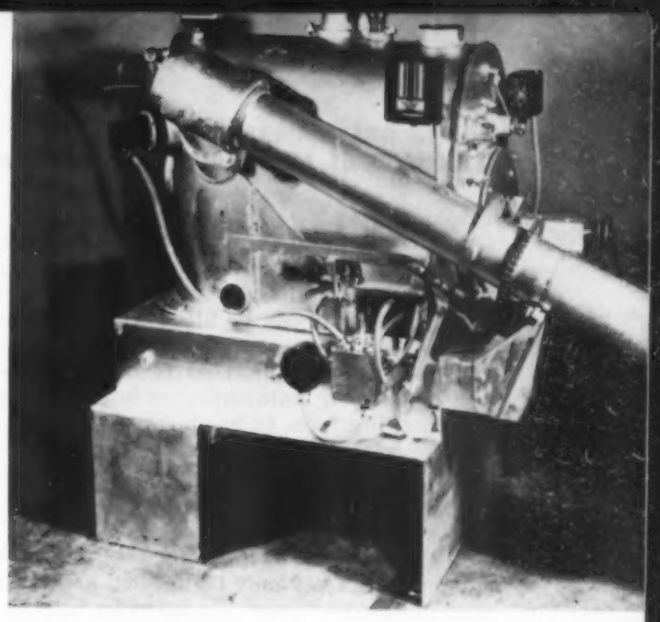
In planning fuel consumption, and bin and ash disposal layouts, the fact that the anthratube has an efficiency of 80-85% may cut these requirements by as much as 40%. Features of the anthratube are the archimedes tube feed (which cannot jam or overfeed) and a centrifugal induced-draft fan which scrubs hot gases against a series of boiler surfaces. The unit also disposes of fly-ash efficiently and cleanly. The anthratube represents completely automatic hard-coal heating.

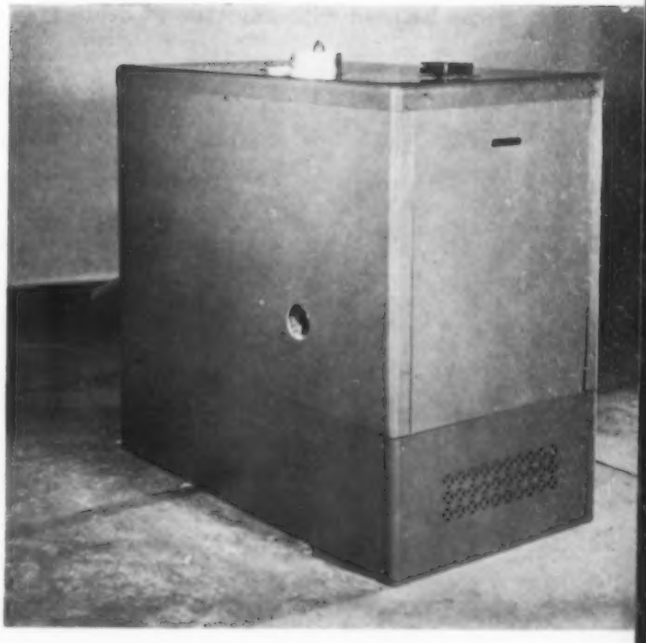
Characteristics of the unit which affect house design and planning are the minimum space it requires and its dustlessness. Dimensions of the boiler-burner unit, with jacket, are: 24" by 31" by 42". Action of the induced-draft fan, which operates only in a vacuum, and eliminates fly-ash via a "cyclone" tube, protects against dust in the room where it is installed as well as other floors of the house.



ANTHRATUBE WIRING FOR CIRCULATED HOT WATER HEATIN



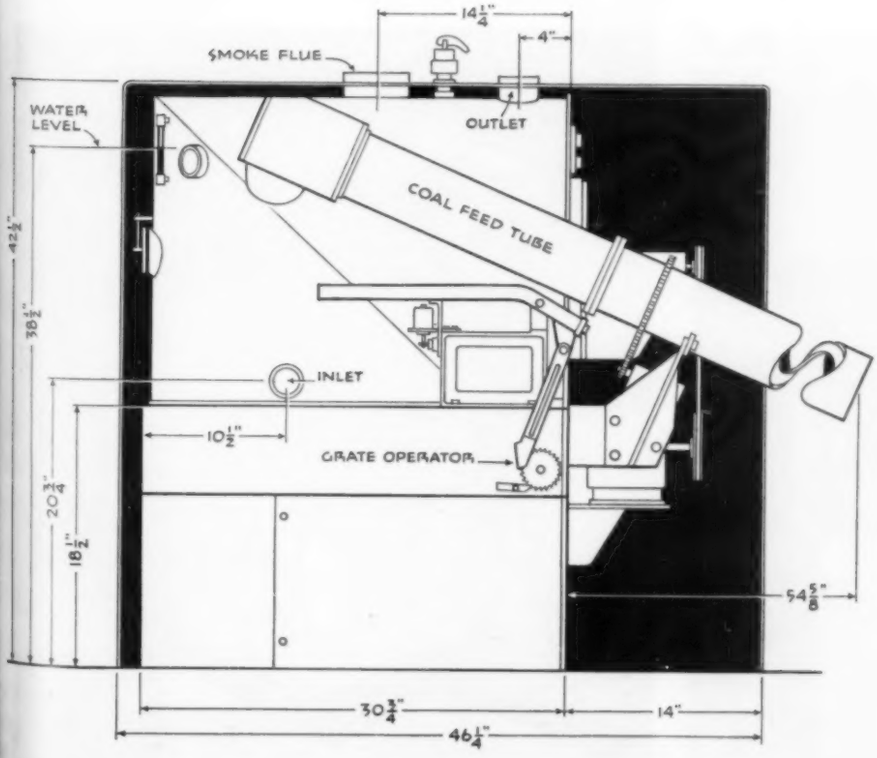


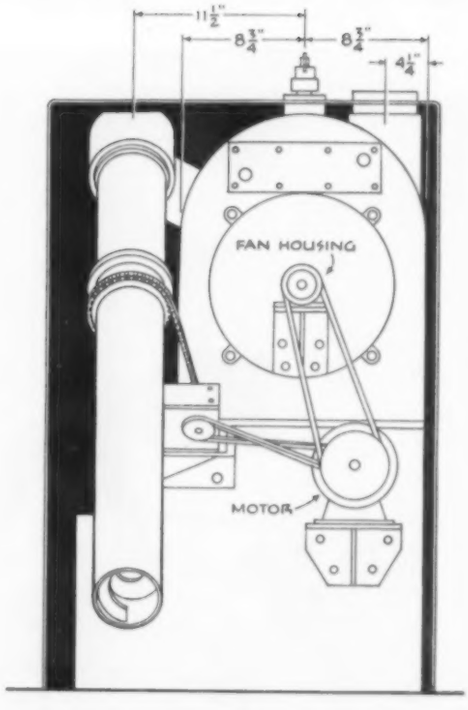


Net Rating

Standing Radiation including Domestic Water Load			Recommended Load
Steam	*sq ft*	*550*	*370*
Vapor	*sq ft*	*575*	*390*
Hot Water	*sq ft*	*880*	*620*
B.T.U. per Hour		*130,000*	
Boiler Outlet Size	*in.*	*(one) 3*	
Boiler Inlet Size	*in.*	*(two) 2*	
Safety Valve Size	*in.*	*1*	
Shipping Crate: Width	*in.*	*28*	
Height	*in.*	*48*	
Length	*in.*	*48*	
Shipping Weight Crated	*lbs*	*800*	
Shipping Weight Jacket	*lbs*	*100*	
Water Content	*gals*	*25*	
Heating Surface	*sq ft*	*13*	

Coal feeds into Anthratube from bin through Archimedes tube, through transfer box into firepot; ashes are pushed into receiver. Draft is pulled through by fan; fly-ash is separated from flue gases. Right, jacketed and unjacketed views.





ELEVATIONS OF ANTHRATUBE

6. CHOICE OF ANTHRACITE EQUIPMENT (continued) . . . Automatic Anthracite Stokers

One advantage of the hand-fired anthracite heater—still valued because it is simple and reliable—is its ready convertibility to greater convenience. Most hand-fired units can be fitted with automatic stokers. The degree of convenience obtainable is a matter of choice. For example, coal feed may be worm-screw and completely automatic, or hopper feed requiring replenishing from twice daily to several times weekly. Similarly, ash may be removed into sealed containers for weekly or more frequent disposal, or into a vault for annual or semi-annual disposal.

Boiler and furnace stoker combinations of a wide range in capacity may be applied as a single heating unit. These are generally rated in outputs in Btu per hour at the boiler outlet or furnace bonnet. They may be used with any type of heating system.

The size of the unit may be easily determined from:

1. The established heat loss of the individual house;
2. The published capacity of the particular manufacturer's unit.

Sizing the Stoker

Determine stoker size by:

multiplying 4 sq ft (or less grate area by 5
" more than 4 sq ft " " by 7
" any forced warm air " " by 7

To check—one pound of anthracite per hour, stoker-fired, will carry these loads:

28 sq ft of edr steam radiation
46 sq ft of edr gravity hot water radiation
30 sq in. of gravity warm air leader pipe area

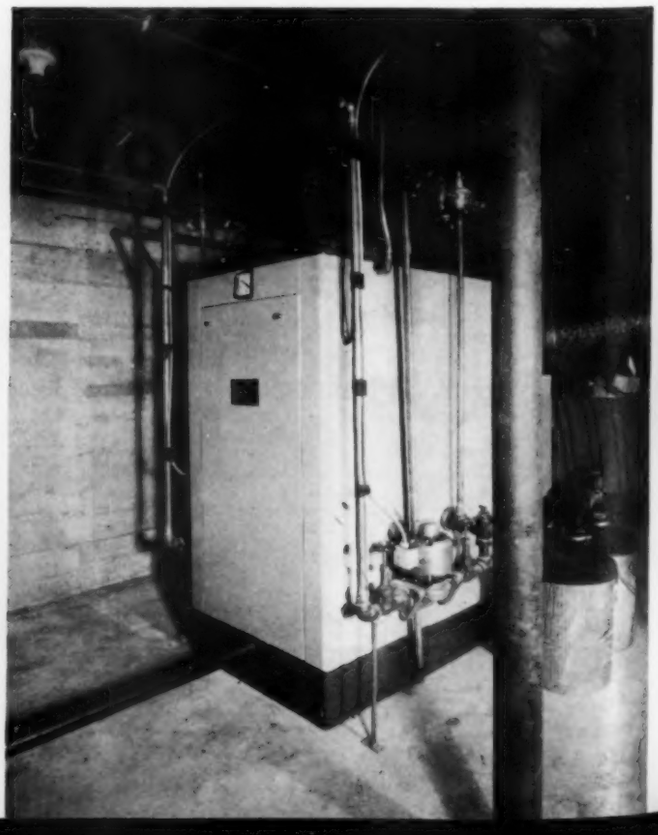
Stoker Controls for Various Heating Systems

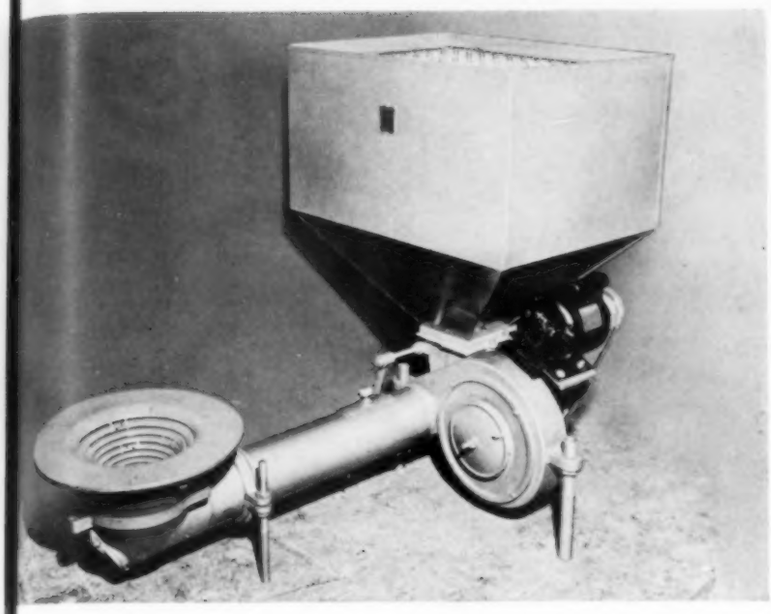
Steam	Gravity Hot Water	Forced Hot Water	Warm Air	Function of Control
Thermostat	*Thermostat*	*Thermostat*	*Thermostat*	*Control Room Temperature*
Pressure Limiter	*High Limit Aquastat*	*Reverse Acting Aquastat*	*High Limit Switch*	*Protect against excessive temperature or pressure*
Direct Aquastat	*Low Limit Aquastat*	*Low Limit Aquastat*	*Low Limit Switch*	*Maintain minimum water or air temperature*
Timer Relay	*Timer Relay*	*Timer Relay*	*Timer Relay*	*Hold fire*
Low Water Cutout[1]		*High Limit Aquastat*[2]		[1]*Protect boiler against low water* [2]*Provide usable hot water for domestic use*

Stoker manufacturers furnish, as standard equipment, conventional controls for automatic firing. Complete instructions for wiring are included with the unit.

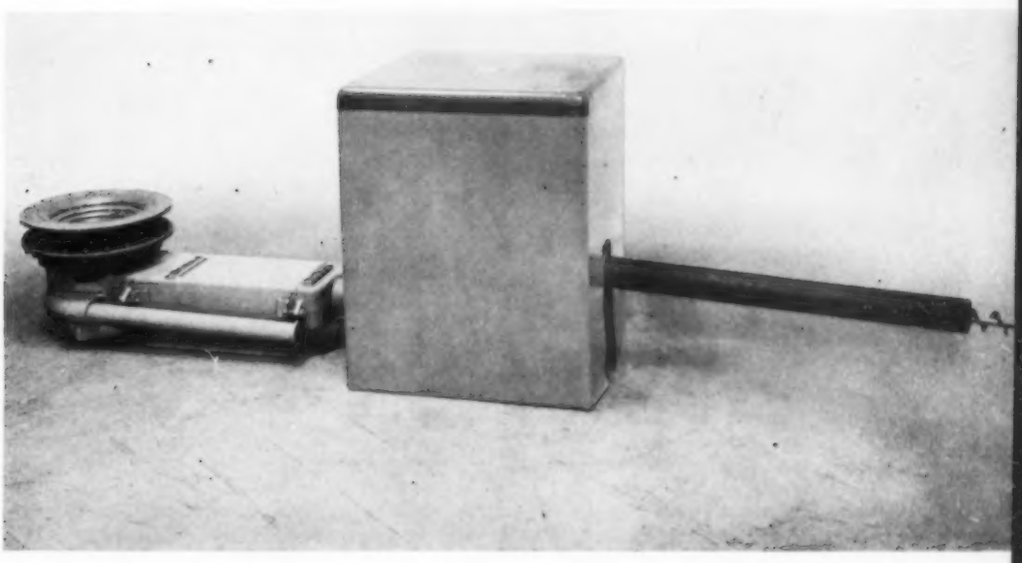
Hopper feed stoker and boiler, automatic ash removal to cans.

Stoker-boiler unit, bin feed, with automatic ash removal to cans.





Stoker equipment makes easy conversion of hand-fired furnaces to automatic (boilers not shown): Left, hopper feed, spill-over ash disposal, stoker without jacket.



Bin feed, spill-over ash disposal, with jacket.

Bin feed, automatic ash disposal to covered cans, with jacket. Automatic ash disposal to a vault, for annual or semi-annual removal, can also be provided.

Products

Wood Door Passes 1½-Hour Fire Test

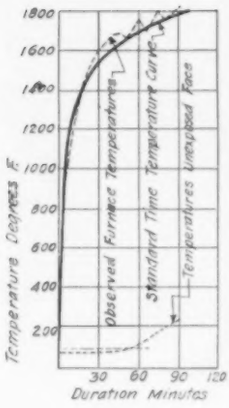
Late in 1948 the Protexol Corp. had a wood "fire" door tested. The door was not an ordinary assembly; its rails were deeply mortised into its stiles, and the panel cores were rebated into the framing; furthermore, the entire assembly —stiles, rails, panel cores, crossbanding, and face veneers—was pressure-treated with Protexol fire-retardant. We didn't see the tests, but an architect who did started his report to us in this fashion:

"I've just seen the — —est fire test!" Whereupon we noted his report in our NEWSLETTER last December; that modest paragraph excited much comment.

The door tested is called the "Fox-Made" Wood Fire Door, produced by Fox Bros. Mfg. Co., Inc., of 2717 Sidney St., St. Louis 4, Mo. It is 2¼" thick, with a solid, laminated, Ponderosa pine core. The door was equipped with a standard Corbin lock and Hager offset hinges bolted to the jamb, screwed to the door. Testing was done in accordance with requirements of the New York City Building Code and the ASTM. At the start of the test, surface finish on the fire side started to blacken and blister, but at no time during the 92½-minute run did flame or smoke break through to the unexposed side.

After half an hour, veneers on the fire side pulled away from the core. Ten minutes later, finish on the unexposed face began to blister. At about the same time, the upper corner of the lock side of the door began to pull away from its stop, but after 1½ hours it had pulled away only 1-5/16" (since the door was 2¼" thick, considerable thickness was still sealing the opening against drafts; this is attributed to the door's construction), and only a "small area of glow" was visible here.

When the test was over, the door was cooled, the key inserted in the lock, the bolt thrown, and the door opened on its own hinges. Normally hardware on a tested door fails completely.



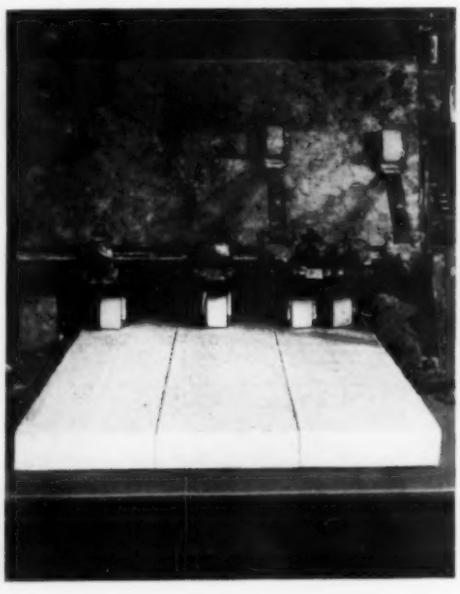
Fire test results of the wood door manufactured by Fox Brothers, of St. Louis, according to Protexol specifications, and built of Protexol-treated wood. Photos: left, surface away from fire; right, surface exposed to fire. Lowest curve in graph shows temperature of surface away from fire. After thus passing 1½-hr test with phenomenal success, a witness tells us, "You could turn the key and walk through!" This is a wood door, remember.

Light Steel Members for All Types of Framing

Unistrut Corp., Wayne, Mich., is manufacturing light steel members and accessories which are at present used principally for racks, lighting fixture hangers, and similar nonstructural purposes. The light sheet steel sections have just been employed by the manufacturers to frame their own new factory building. No welding, drilling, or riveting is required to assemble Unistrut sections. To install Unistrut members only a hacksaw is needed (to cut them to length) and a wrench (to tighten the special bolts). The column and beam members, rectangular in section but with a continuous slot running along one face, can be joined in a tremendous variety of forms by simple fittings bolted to the slotted face of each member. In the new Unistrut factory, roof trusses and braced framing for the walls are so formed. For such uses as bus-bar supports, fittings clamp the Unistrut members to bottom flanges of conventional rolled steel framing; special fittings are available for attaching electrical conductors, etc.

As an aid in engineering design the company is offering, without charge, to professionals who request it on a business letterhead, a slide-rule Beam Load Selector which indicates for Unistrut members used as columns or beams the maximum permissible loads; deflections; bolted joint strengths; and the type, dimensions, gages, weights.

Kaylo Insulating Roof Tile is a structural slab for roof decking manufactured by American Structural Products Co., of Toledo, Ohio. The tiles are 2⅝" thick, 18" wide, 36" long. Made of a combination of cellular and fibrous mineral (chiefly calcium silicate) and reinforced with wire mesh, the noncombustible units weigh only 4½ lb per sq ft—about 21 lb per tile—yet will support a total distributed load of 50 lb per sq ft, with a factor of safety of 4. Underside of the unit is smooth, nearly white, with a light reflection coefficient of 80%. It can be cut with some woodworking tools, as shown in the gang-saw operation pictured at right, to fit job irregularities. Succeeding photos show Kaylo tile being installed on the nine-acre roof of L. Bamberger & Co.'s department store warehouse at Bloomfield, N. J.—first commercial installation of the product.



air and temperature control

Gas-Fired Revolving Unit Heater: for overhead location. Combines gas burners, heat exchanger, and combustion chamber with motor-driven fan and revolving discharge outlets; can be turned into cooling device by shutting off gas and turning on fan. L. J. Wing Mfg. Co., 154 W. 14th St., New York, N. Y.

construction

Flex-Wall: interchangeable metal partitions, available in flush- and panel-type construction; standard horizontal and vertical sizes, with minimum of interchangeable parts. Simplified installation. American Sanitary Partition Co., 37-16 22nd St., Long Island City 1, N. Y.

Kaylo Insulating Roof Tile: lightweight, noncombustible, all-mineral slab, reinforced with steel wire mat; impervious to heat, flames, moisture. Designed as structural unit for total load of 50 lbs per sq ft; flexural strength more than sufficient for typical roof deck requirements. Measures 2⅝ x 18 x 36 in., weighs about 21 lbs. American Structural Products Co., Ohio Bank Bldg., Toledo 1, Ohio.

Rub-Bub Color-Armored Tubing: for structural members, tubular frame furniture, fixtures, garment racks, guard rails, etc. Samuel Moore & Co., Mantua, Ohio.

Unistrut Steel Framing: new method of frame construction for all purposes. No drilling, welding, or special equipment necessary; may be used permanently or dismantled and used again in various combinations. Unistrut Products Co., 1013 Washington Blvd., Chicago 7, Ill.

doors and windows

Alumatic: combination storm and screen door of extruded hollow aluminum sections. Aluminum Building Products Co., 1229 S. 41st St., Milwaukee, Wis.

Saf-T-Vue: door plate, with push button chime, wide angle lens of 175° to allow complete view of any visitor; brass, chrome, or two-tone bronze finish. Arthur-Lloyd Corp., 1133 Broadway, New York 10, N. Y.

Vimlite Windows: lightweight wire mesh coated with transparent Celanese cellulose acetate. Celanese Corp. of America, 180 Madison Ave., New York 16, N. Y.

Hollywood Canopy: all-aluminum canopy for doors and windows, complete with stainless steel screws, nuts, bolts, aluminum brackets necessary for hanging; will support dead weight of 235 lbs. Colgate Mfg. Corp., Amityville, L. I., N. Y.

Fireproof Wood Door: vacuum pressure fire-retardant treatment protects wood against ignition and spread of flame; first wood door to resist 1½ hour fire test under requirements of ASTM E 152-41. Fox Bros. Mfg. Co., Inc., 2717 Sidney St., St. Louis 4, Mo.

Harco Rods: Tenite coated; for clothes closets, shower curtains, etc. No nails or screws; will hang in any space having two side walls. Two telescoping sections, rubber-capped end flanges grip walls. Hang-It-All Rod Corp., 1519 Dime Bldg., Detroit 26, Mich.

Access Doors: made of 14 gage steel, with 16 gage steel housing. Inland Steel Products Co., P. O. Box 393, Milwaukee 1, Wis.

LaBelle Door-knob Locks: tumbler-type cylinder lock built into outer knob; simplifies installation, eliminates large lockplate. LaBelle Industries, Oconomowoc, Wis.

Sliding Door Frame: metal-backed jamb, fiber rollers on steel track; all standard widths. Nordahl, 180 W. Alameda Ave., Burbank, Calif.

Plexiglas Jalousies: outside window blinds controlled from within; louvers adjusted to any angle by simple pressure on lever. Rohm & Haas Co., Washington Sq., Philadelphia 5, Pa.

Tilt-A-Door: aluminum overhead garage doors; no springs, no tracks no noise. Tilt-A-Door Corp., 503 E. Nine Mile Rd., Detroit 20, Mich.

finishers and protectors

Ramuc Masonry Coating Flat: for protection of building exteriors against weather; **Improved Ramuc Enamel,** for prevention of mildew on painted surfaces. Inertol Co., Inc., 480-490 Frelinghuysen Ave., Newark 5, N. J.

Hy-Toner Base White Tinting Enamel: for woodwork, window sills, etc. Flat paint and toner may be added to match flat walls without loss of gloss. **Hydall Enamel Undercoater:** pure white, for new walls or previously painted surfaces; prevents old color from bleeding through. Roberts Paint Corp., 515 Bryant Ave., New York 59, N. Y.

plastics

Synspun: new glass fiber material with many functional, decorative uses: indirect lighting, wall panels, table tops, etc. Wide range of thicknesses and flexibility; in colors or metallic finishes. Will not warp or shrink; ink-, alcohol-, grease-proof. Polyplastex United, Inc., 92-35 Horace Harding Blvd., Elmhurst, N. Y.

specialized equipment

Alfco Carbon Dioxide Fire Extinguishing System: to protect Class "B" and "C" risks, and for rotating electrical units requiring sustained discharge of carbon dioxide. American-LaFrance-Foamite Corp., Elmira, N. Y.

Ames Revolving Shelves: for kitchen cabinets and coolers; aluminum; three types (overhead, base cabinets, coolers). W. R. Ames Co., 150 Hooper St., San Francisco, Calif.

Fire Alarm: for schools, small hotels, office buildings, etc.; break-glass alarm boxes, signals, control panel. Autocall Co., Shelby, Ohio.

Johnson Safety Vault: various models, cylindrical steel vaults; fire resistant, pick-proof combination lock; for houses, apartments, offices. B. B. & C. Mfg. Co., Richmond, Calif.

Electrostatic Intercoupler: safeguard against electrostatic explosion hospital operating rooms; housed in brass box for installation in floor under operating table. **Locking Pushbutton:** for nurses' bedside calling stations; improved design. Cannon Electric Development Co., 3209 Humboldt St., Los Angeles, Calif.

Television Antenna: increases range of television and FM sets in fringe areas by as much as 15 to 25 miles; eliminates unwanted sound and picture disturbances. Eastern Transformer Co., Inc., 147 W. 22nd St., New York 11, N. Y.

Booster Amplifier: compact unit, provides increased volume on intercommunication and sound systems. Combination four-step volume control and on-off switch. Executone, Inc., 415 Lexington Ave., New York 17, N. Y.

Electric Time System: electronic self-regulation to control indicating, recording, signaling equipment; no special wiring. International Business Machines Corp., 590 Madison Ave., New York 22, N. Y.

Bobtail Ice Cream Fountain: 6½' unit, single or double station with provision for addition of third draft arm. Liquid Carbonic Corp., 3100 S. Kedzie Ave., Chicago 23, Ill.

Radio DorAfone: combination radio and intercall system; for installation in new houses. Setchell Carlson, Inc., St. Paul, Minn.
miles; for applications where power supply is

Office Valet Lockerette: unit combining open hanger and hat space with private lock box for personal effects; single rows or back to back in double rows. Vogel-Peterson Co., 624 S. Michigan Ave., Chicago 5, Ill.

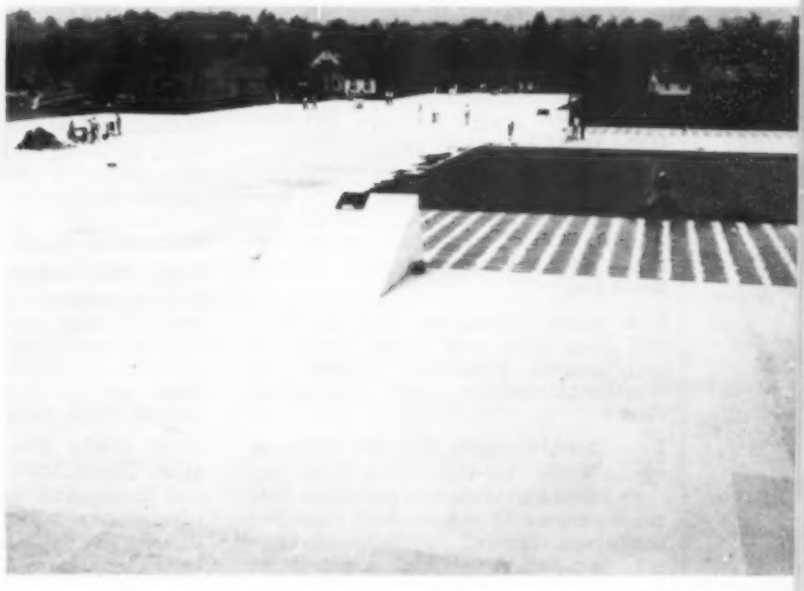
Self-Powered Telephone: effective up to 25 unavailable; no batteries or other power supply. Wheeler Insulated Wire Co., Waterbury, Conn.

Complete Kitchens: custom-built and packaged units. Wood Metal Industries, Inc., 101 Park Avenue, New York 17, N. Y.

water supply

All Metal Soap Dispenser: for schools, factories, etc.; concealed wall fastening; unbreakable "eye" to tell when to refill. Bobrick Mfg. Corp., 330 Fifth Ave., New York, N. Y.

Airtowel Electric Hand Dryer: hot air dries hands in approximately 40 seconds; foot switch; 1,000w 115v a-c or d-c. Morica Products Corp., 835 W. Madison St., Chicago 7, Ill.



Manufacturers' Literature

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

AIR AND TEMPERATURE CONTROL

★ **1-227. B & W Firebox Handbook (Bul. R-20B),** 33-p. bulletin on design and construction of fireboxes for domestic oil burners. General and technical data, dimensions, drawings, contents table. Babcock & Wilcox Co.

1-228. Byers Radiant Heating in Poultry Houses, 12-p. booklet. Advantages, description, typical installation diagrams and photos, general data. A. M. Byers Co.

Two bulletins on radiant panel heating systems: one, containing general information on advantages and disadvantages; the other, a manual giving simplified graphical design procedure, reducing work of computation to less than required in standard convection-type heat loss calculations. Revere Copper & Brass, Inc.:

1-229. Radiant Panel Heating

1-230. A Graphical Design Procedure for Radiant Panel Heating (2nd Edition).

1-231. A Modern Hot Water Generator, 8-p. illus. booklet on hot water generator for residential, commercial, and industrial radiant heating and water supply. Description, charts, diagrams, water hardness classification, specifications. George Swett & Co.

★ **1-232. Merely a Matter of Air (S 420-5-1048),** 53-p. illus. booklet on large or average sized multi-room air-conditioning systems. Nontechnical information for the layman. Trane Co.

CONSTRUCTION

3-45. Belden Brick, 23-p. bulletin describing color and texture of various types of brick. Color plates. Belden Brick Co.

3-46. Alcoa Aluminum, AIA 15 (Cat. 48), 34-p. illus. catalog on variety of architectural aluminum shapes and ornamental castings. Index. J. G. Braun Co.

★ **3-47. Transite Movable Asbestos Walls (TR-47A),** 24-p. illus. brochure on walls and partitions that can be moved at will to meet changing conditions. General, detailed data, typical installation photos, construction drawings, specifications. Johns-Manville.

3-48. The Design of Insulated Roofs, AIA 37, 36-p. illus. manual concerned with roof design and problems imposed by heat flow through roof structures. Description of various types of Fiberglas insulation, specifications, ventilation requirements, recommendations, index. Owens-Corning Fiberglas Corp. (50 cents per copy; make check or money order payable to Owens-Corning Fiberglas Corp.)

DOORS AND WINDOWS

4-162. Cornell Rolling Doors, AIA 16-D-13 (Cat. Y26), 8-p. illus. catalog on rolling steel doors, rolling and sliding grilles (made of steel, aluminum, or bronze), other types of doors. Descriptions, recommended uses, detail drawings, specifications. Cornell Iron Works, Inc.

4-163. Modern Window Shading, AIA 28E (A-1379), 47-p. illus. portfolio on waterproof, weather-resisting window shade material. General and technical data, details, specifications, mechanical drawings, samples. E. I. Du Pont de Nemours & Co., Inc.

4-164. The Balanced Door (1949), 12-p. illus. booklet on entrance door, pivoted top and bottom for minimum operation effort. Description, details, specifications, photos, list of installations. Ellison Bronze Co., Inc.

4-165. Make the Most of Daylight, AIA 10-F (G81258), 16-p. booklet on use of glass block fenestration and proper selection for light direction and diffusion. PC Nomograph for estimating illuminating levels, other technical data and charts. Pittsburgh Corning Corp.

★ **4-166. Thermag Insulating Glass Block Skylights,** AIA 12-J (Brochure S-49), 4-p. illus. bulletin, including construction features and details, advantages, specifications, tables. Also diffusing glass, plain and wired sheets. J. Merrill Richards.

ELECTRICAL EQUIPMENT AND LIGHTING

5-166. Plan-O-Lite, AIA 31-F-2, portfolio containing complete layout to illustrate effective use of planning lighting installations. Additional sets sent at intervals to round out complete reference source. Installation photos included. Frink Corp.

5-167. Globe Fluorescent, AIA 31-F2 (Cat. CO-49), 31-p. catalog on commercial fluorescent fixtures. Descriptions, illustrations, sections, application data, lighting computation data, illumination levels, luminaire spacings, glossary of lighting terms. Globe Lighting Products, Inc.

5-168. Ecclesiastical Lighting, AIA 31-F-28 (Cat. 45), 7-p. illus. catalog on church luminaires for interior and exterior application. Descriptions, table of illumination value. Edwin F. Guth Co.

★ **5-169. Ceilings Unlimited,** 105-p. book describing and illustrating fluorescent troffer lighting systems. Engineering and installation details, illumination performance, typical installations, ordering table. Miller Co.

FINISHERS AND PROTECTORS

Folder and color chart booklet on paints and paint and varnish removers. Descriptions, instructions, color formulas. National Chemical & Mfg. Co.:

6-144. How to Remove Paint and Varnish.

6-145. Fresco Colors.

★ **6-146. A Professional Color-Scheme Portfolio for Paints,** containing 84 "custom" color cards arranged in groups for color harmony. Murphy Paint Div., Interchemical Corp. ($3.75 per copy; make check or money order payable to Murphy Paint Div.)

6-147. Sika Vinyl Coating, AIA 25B (Pamphlet SVC-2), loose sheet on protective coating for application on concrete, masonry, steel, wood, other construction materials. Properties, specification. Sika Chemical Corp.

INSULATION (THERMAL, ACOUSTIC)

9-107. Sound Control (AC-35A-10-48), 15-p. brochure on noise quieting, acoustical correction, and vibration isolation. Data on size, weight, and sound absorption of materials recommended, construction details, typical installations, photos. Johns-Manville.

9-108. Vibration Control, AIA 37-H (Cat. G-101), 4-p. bulletin on vibration isolators adaptable to almost any type of installation. Isolation selector chart, typical specifications, brief descriptions. Korfund Co., Inc.

Five folders on insulating and acoustical materials. Properties, forms and sizes, uses, photos. Owens-Corning Fiberglas Corp.:

9-109. Fiberglas (G45-2R47)

9-110. Underground Pipe Wrap (1CP46-1)

9-111. Roof Insulation (B 48-3)

9-112. Insulating Air Conditioning Units (AC-48-1)

9-113. **Acoustical Tile (A48-1)**

PLASTICS

16-119. Two Fold Tribute by Modern Plastics, 4-p. folder on various uses of plastics, including partition blocks with special interlocking ribs. Description, photos. Columbia Protektosite Co., Inc.

16-120. Decorative Molded Plastics (1687), 4-p. illus. folder on laminated plastic sheet material, suitable for many applications, including table, counter, and furniture tops. Description, installation photos. Plastics Div., Farley & Loetscher Mfg. Co.

16-121. Plexiglas, 12-p. illus. booklet on architectural uses of acrylic plastic. Properties, types, sizes, thicknesses, sections, elevations, typical installations. Rohm & Haas Co.

WATER SUPPLY

19-319. A Modern Hot Water Generator, 8-p. illus. booklet on hot water generator for residential, commercial, and industrial water supply and radiant heating. Description, charts, diagrams, water hardness classification, specifications. George Swett & Co.

19-320. Hotpoint Automatic Electric Dishwasher (W-50), 6-p. folder on dishwasher with simplified drain system to reduce installation costs. Description of four models, illustrations. Hotpoint, Inc.

19-321. Specifications, AIA 29-D-2, 3 loose sheets on three automatic gas water heaters. Diagrams, description chart, features. A. O. Smith Corp.

19-322. Mullinaider (3234), 11-p. manual with full instructions for installing electric garbage disposer. Diagrams. Mullins Mfg. Corp.

SPECIALIZED EQUIPMENT

19-323. Drafting Room Equipment (Cat. 13-S), 16-p. illus. catalog on steel drawer units, tables, tracing boards, accessories. Descriptions, specifications. Hamilton Mfg. Co.

19-324. Fine Furniture, folder containing color plate illustrating new technique of bonded laminated construction. H. Morris & Co., Ltd.

Two illus. 12-p. manuals, one with working drawings attached, on wool insulation, made from redwood bark, for cold storage and frozen food locker plants. Physical properties, vapor proofing and construction details, installation methods, typical layouts, plans, diagrams, other technical data. Pacific Lumber Co.:

★ **19-325. Cold Storage Manual (CS-302)**

★ **19-326. Frozen Food Locker Plant Plan and Construction Manual (Bul. LPC-401),** and working drawings.

19-327. Dust Control (Bul. 98), 24-p. illus. bulletin describing industrial dust-control systems. Description, general and detailed data, operating features, typical dust filter installations, drawings and diagrams, index. W. W. Sly Mfg. Co.

19-328. Frozen Food Cabinets (Bul. 46829-4), folder with descriptions, photos, specifications. York Corp.

SURFACING MATERIALS

19-329. Today's Standards for Floor Quality, 16-p. illus. catalog on asphalt tile flooring. Description, properties, color and pattern charts. David E. Kennedy, Inc.

Three catalogs on tile for interiors, exteriors, and swimming pools. Color plates and charts, typical installations, drawings. Mosaic Tile Co.:

19-330. Floor and Wall Tile (119-BC)

19-331. Faience Tile Exteriors (Cat. 116)

19-332. Swimming Pools (Cat. 118)

★ **19-333. Facts About Prest-Glass,** 6-p. illus. booklet on corrugated glass fiber and plastic laminate paneling; weighs only about 5 oz per sq ft, but said to be stronger than steel or aluminum, weight for weight. Wide variety of applications. Description, sizes, colors, finishes, design suggestions. Prest-Glass Corp.

19-334. Ser-Wall, 4-p. illus. folder on wood-grained paneling in wide number of sizes and finishes. General information, typical installation photos. Service Products Div., Woodall Industries, Inc.

19-335. Floors That Endure (Form C-7), 16-p. illus. booklet describing asphalt tile flooring and its applications. Color and pattern charts, installation directions. Tile-Tex Co., Inc.

19-336. New Horizons in Floor Design, 64-p. illus. booklet showing 54 different floor designs in new type of tile cut with diagonal double curve to allow for multitude of pattern arrangements. Description, suggested applications, photos, installation data, technical information, index. Danbury Rubber Co., Inc.

19-337. Factory-Waxed Asphalt Tile Flooring (Bul. AT101), 4-p. bulletin presenting tile colors and designs. Specifications. Hachmeister, Inc.

Folder and bulletin on 4 types of harmonizing ceramic wall and floor tiles, and thin setting bed method of application, requiring no metal lath or scratch coat. Typical installation photos, descriptions. Mosaic Tile Co.:

19-338. This is Mosaic Tile (121-BC)

19-339. Streamline Tile Jobs (120-W.P.S.)

19-340. Standards for Laminated Thermo-Setting Decorative Sheets (Pub. 48-136 October 1948), 24-p. publication on standards developed by Decorative Laminate Group of Laminated Products Section. Practical data on proper selection, test methods for surface resistance to wear, boiling water, stains, etc.; recommended application techniques. National Electric Mfrs. Ass'n.

30-p. illus. booklet demonstrating many applications of Fiberglas products in manufacturer's own office building. Also folder describing products in which Fiberglas materials are used. Owens-Corning Fiberglas Corp.:

19-341. The Fiberglas Building (G48-7)

19-342. Sources of Supply for Fiberglas Products (G48-8)

19-343. Magnalite, AIA 12-J (M-49), 4-p. illus. brochure on diffusing glass for decorative and functional applications. Description, typical installations, industrial uses, specification. J. Merrill Richards.

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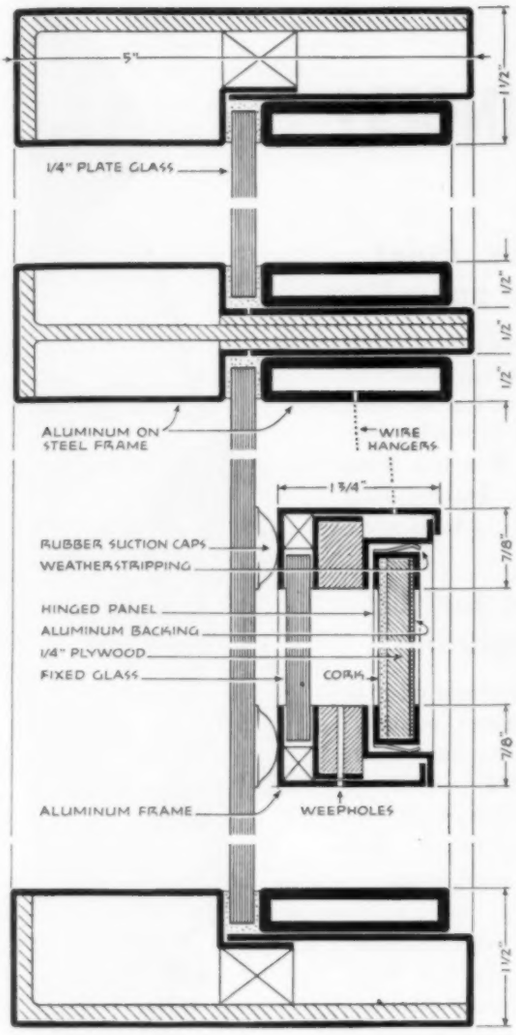

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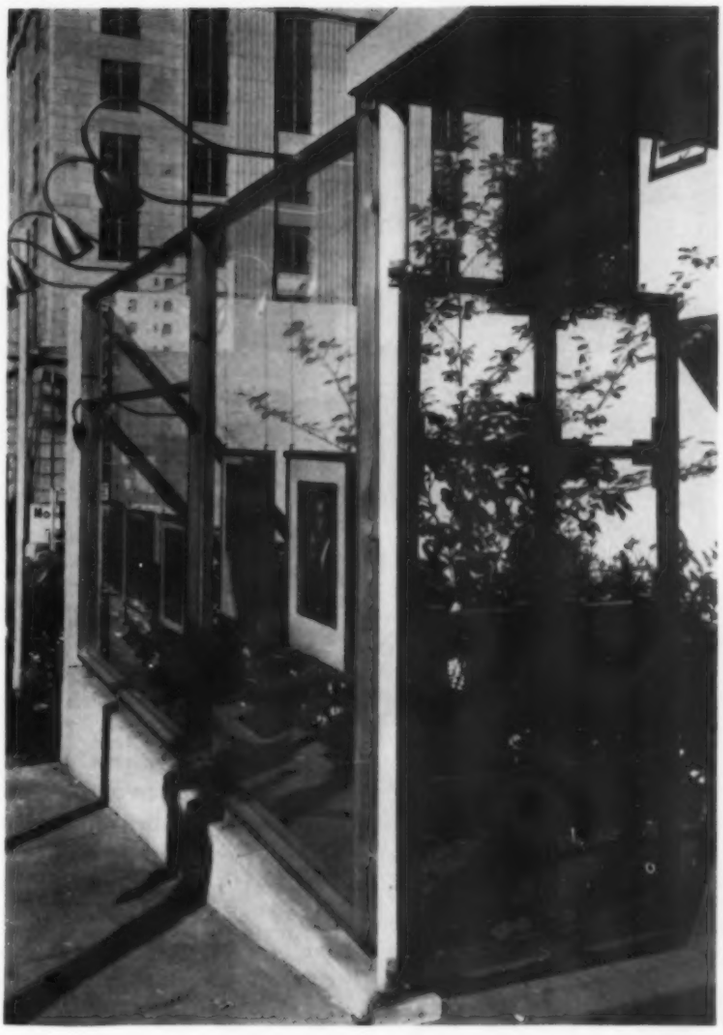

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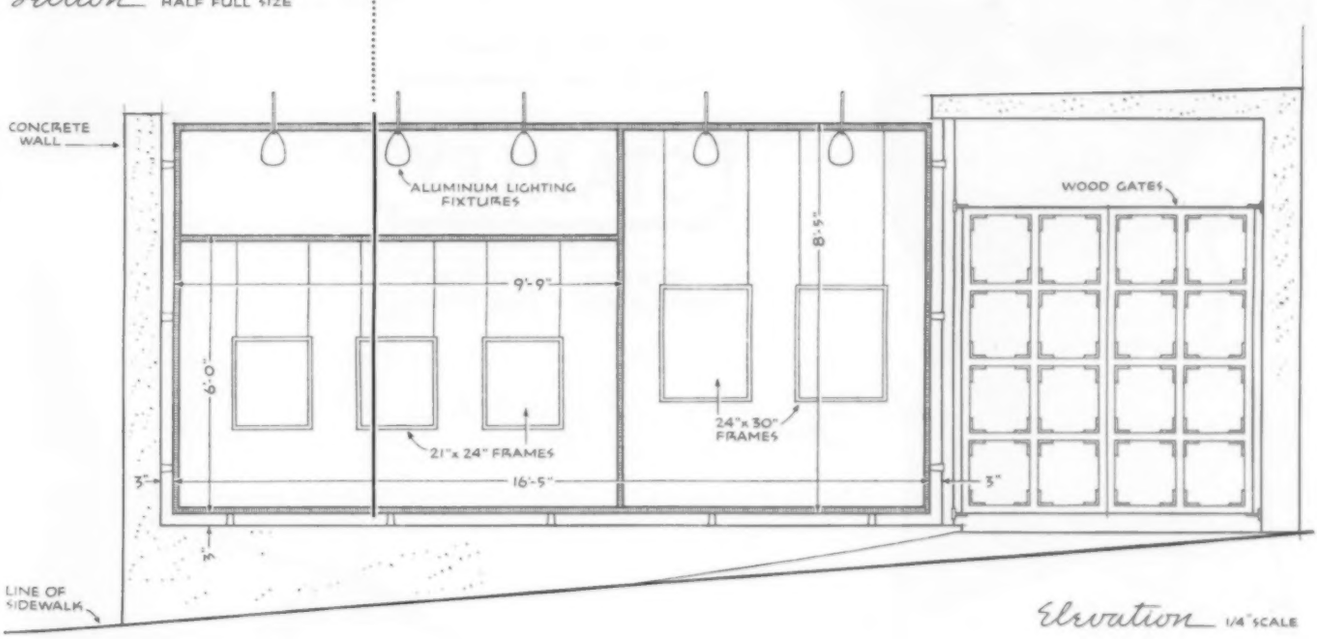

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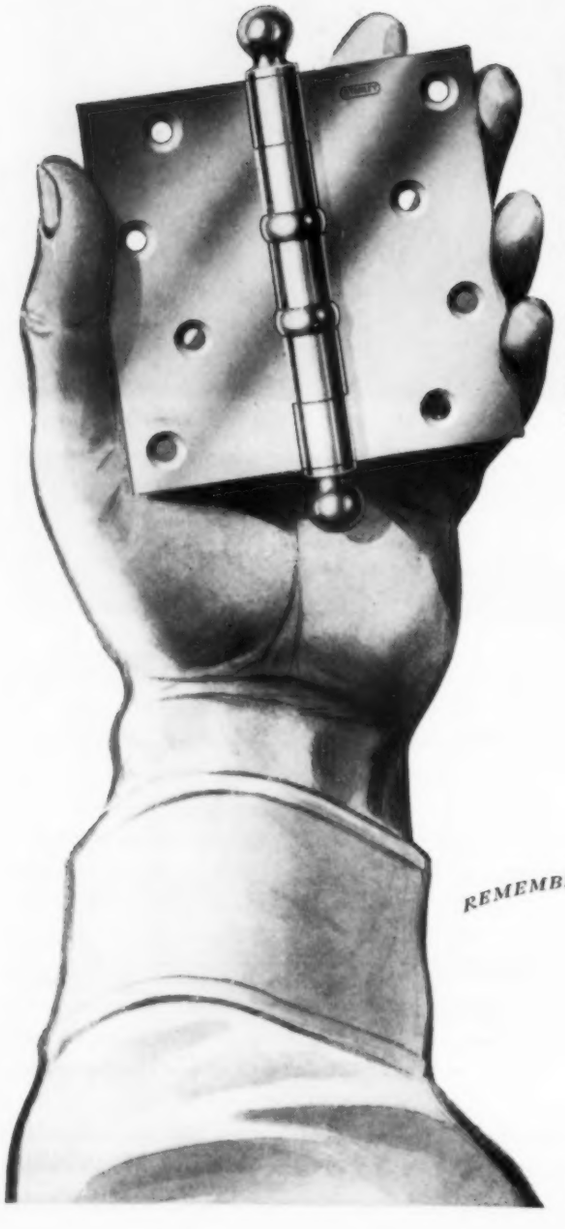

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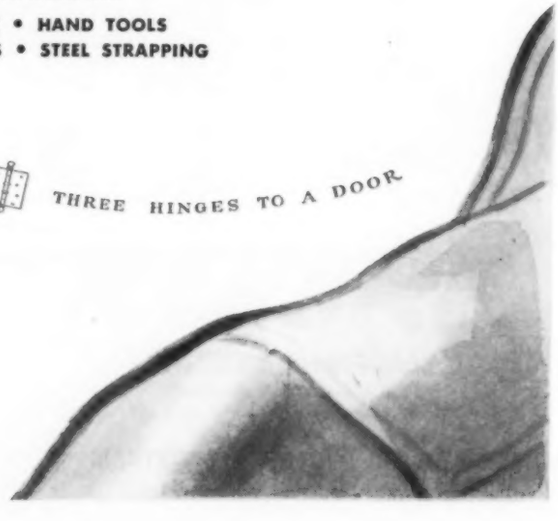
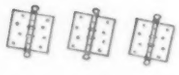
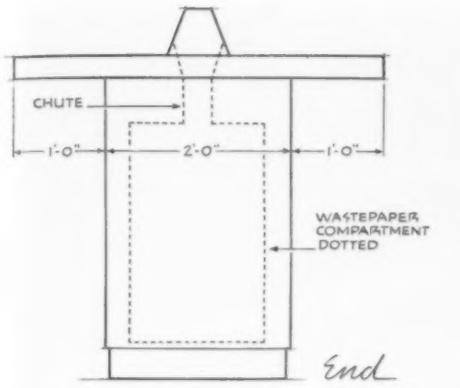
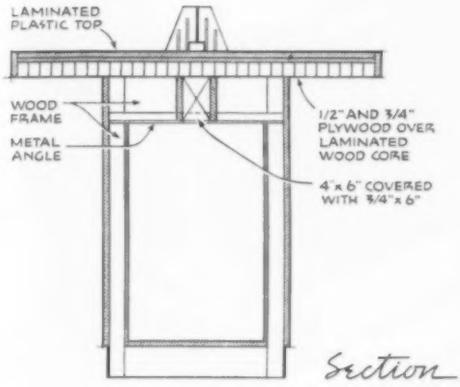


REMEMBER  THREE HINGES TO A DOOR

BANK: check desk





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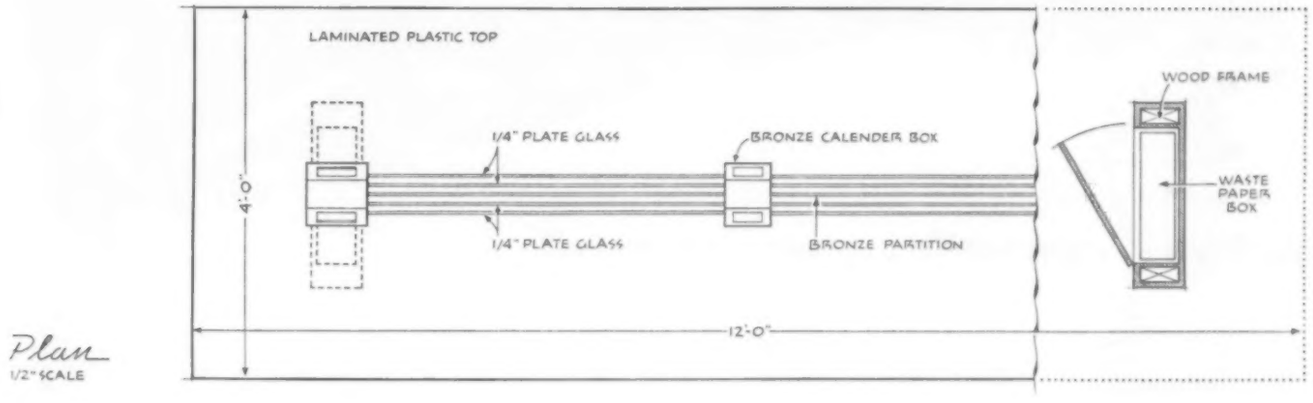

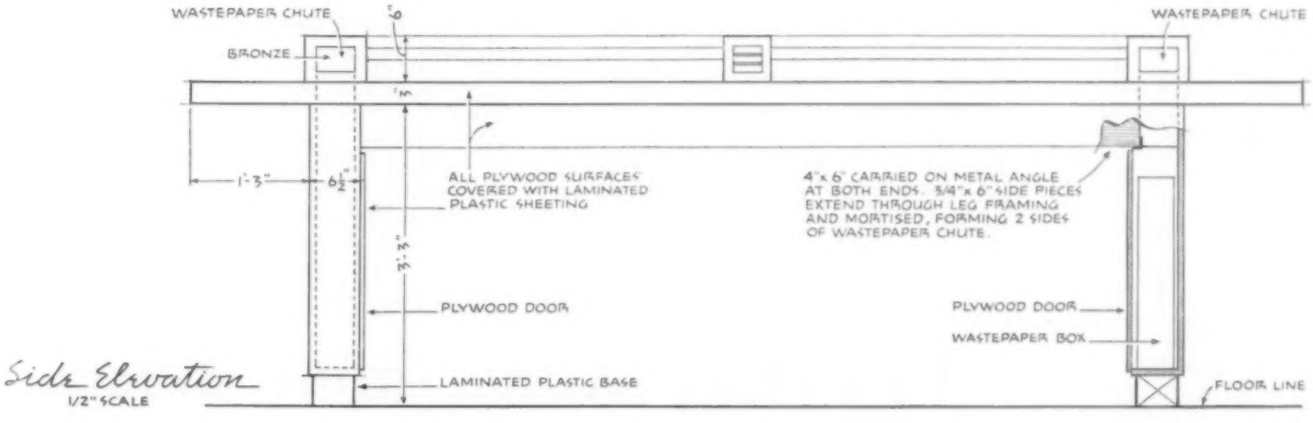

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PIETRO BELLUSCHI
Architect

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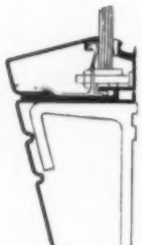

THE new Pittco De Luxe sill-sash combination gives the appearance of a single moulding combining the functions of sill and sash. Actually sill and sash are separate members designed to be used together in certain modern store fronts which require such a stylized assembly.

"Pittsburgh" research . . . aimed to help solve architectural and building problems encountered in the field . . . indicated the advisability of this type of construction. Sill and sash, being separate members, are installed separately. Thus the hazards of glass breakage are reduced to a minimum. Experience in the field also dictated the design which recesses the Carrara Structural Glass bulkhead, providing toe room and protection.

The sill of this new versatile combination is invertible. (See cross-sections.) It is shown above with Sash 12-A, but it may be combined effectively with any of the sashes in the Pittco De Luxe line. Setting procedures for all Pittco De Luxe members are so simple that a substantial saving in setting time is usually effected.

Pittco De Luxe Store Front Metal is formed by the extruded process, assuring both architect and owner of clear, sharp profiles and a finish rich in tone and gloss. It will satisfy the most rigid requirements for quality store front metal.

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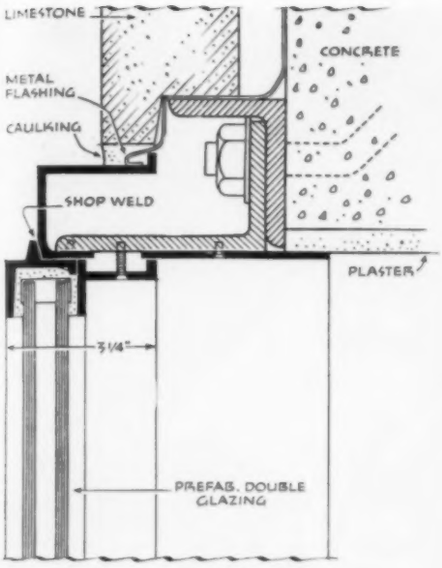
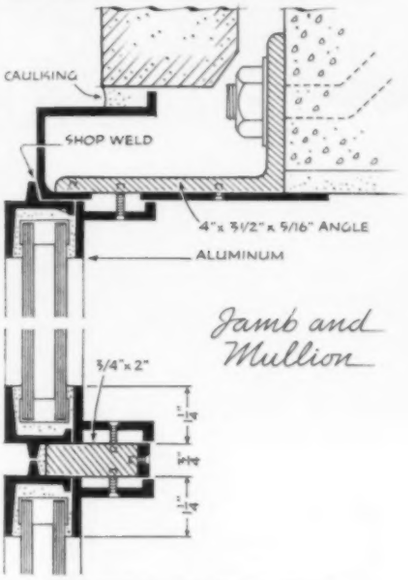
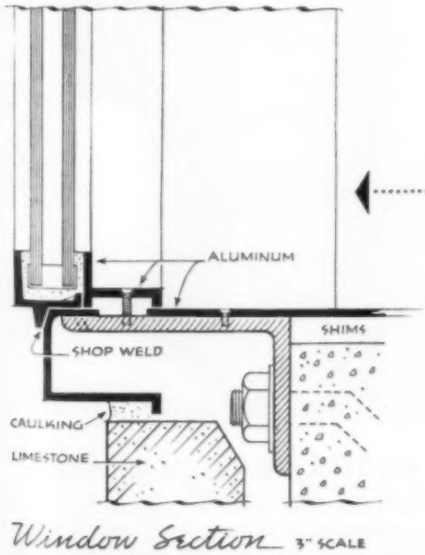
PITTSBURGH PLATE GLASS COMPANY

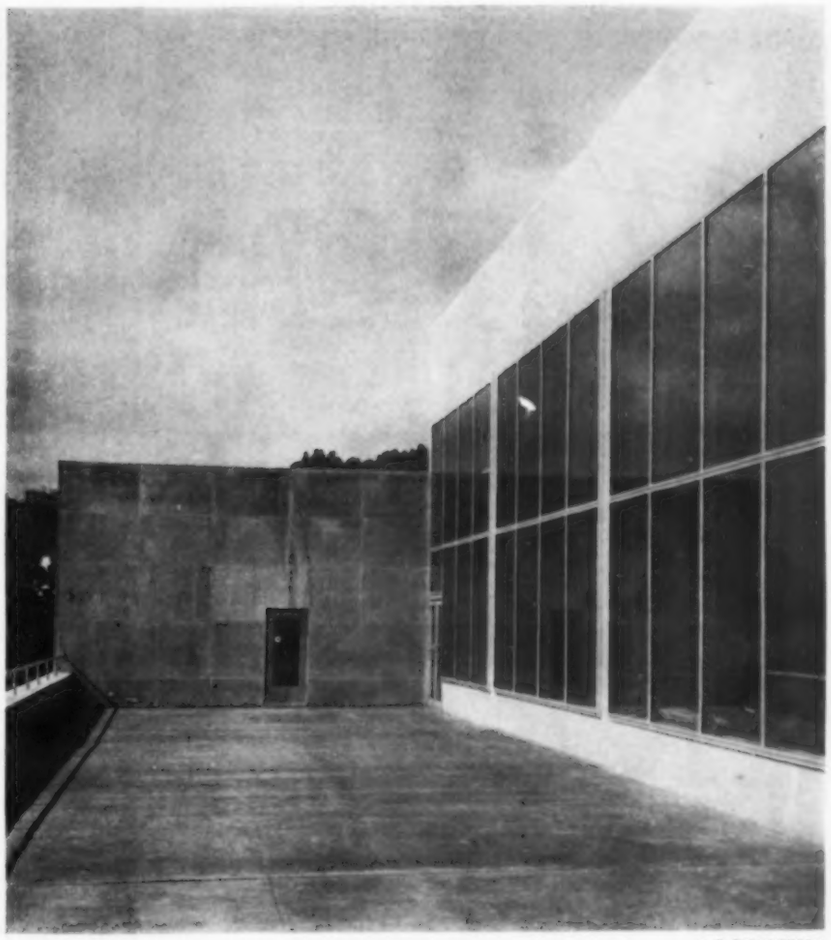




Jamb and Mullion

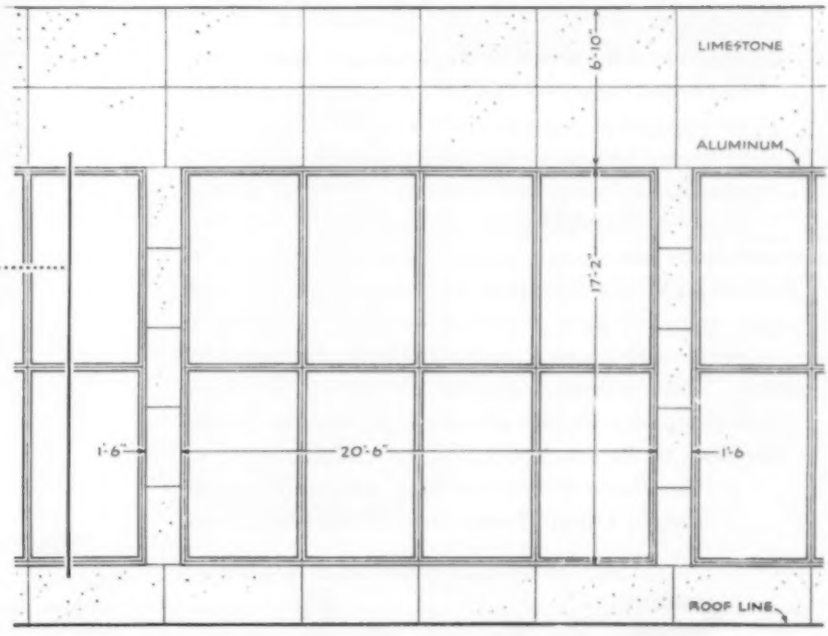


Window Section 3" SCALE



K. E. RICHARDSON

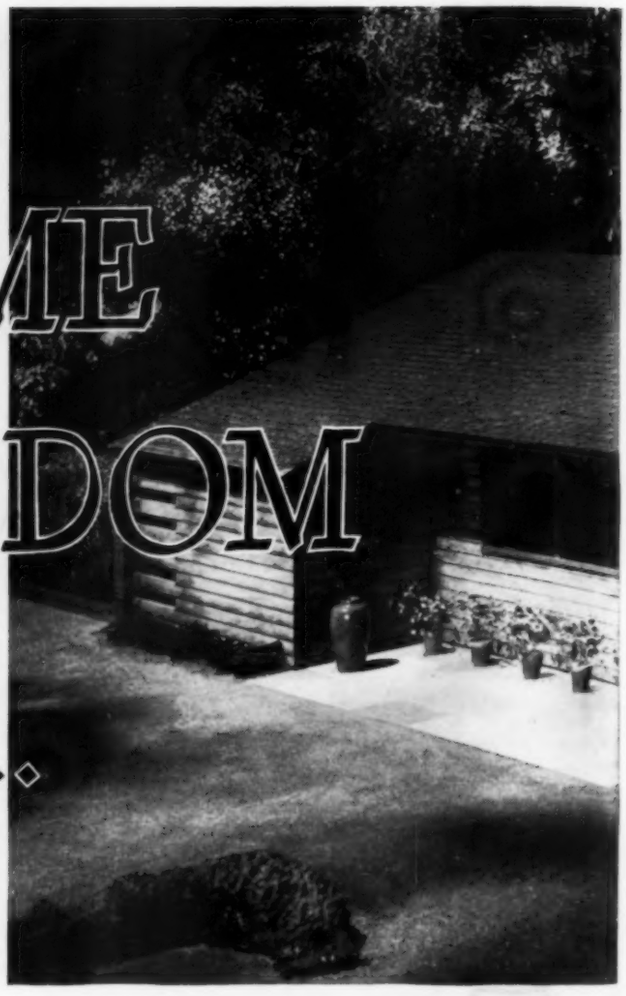
Elevation 1/8" SCALE



OREGONIAN BUILDING
Portland, Oregon

PIETRO BELLUSCHI
Architect

The FLAME OF FREEDOM HOUSE...



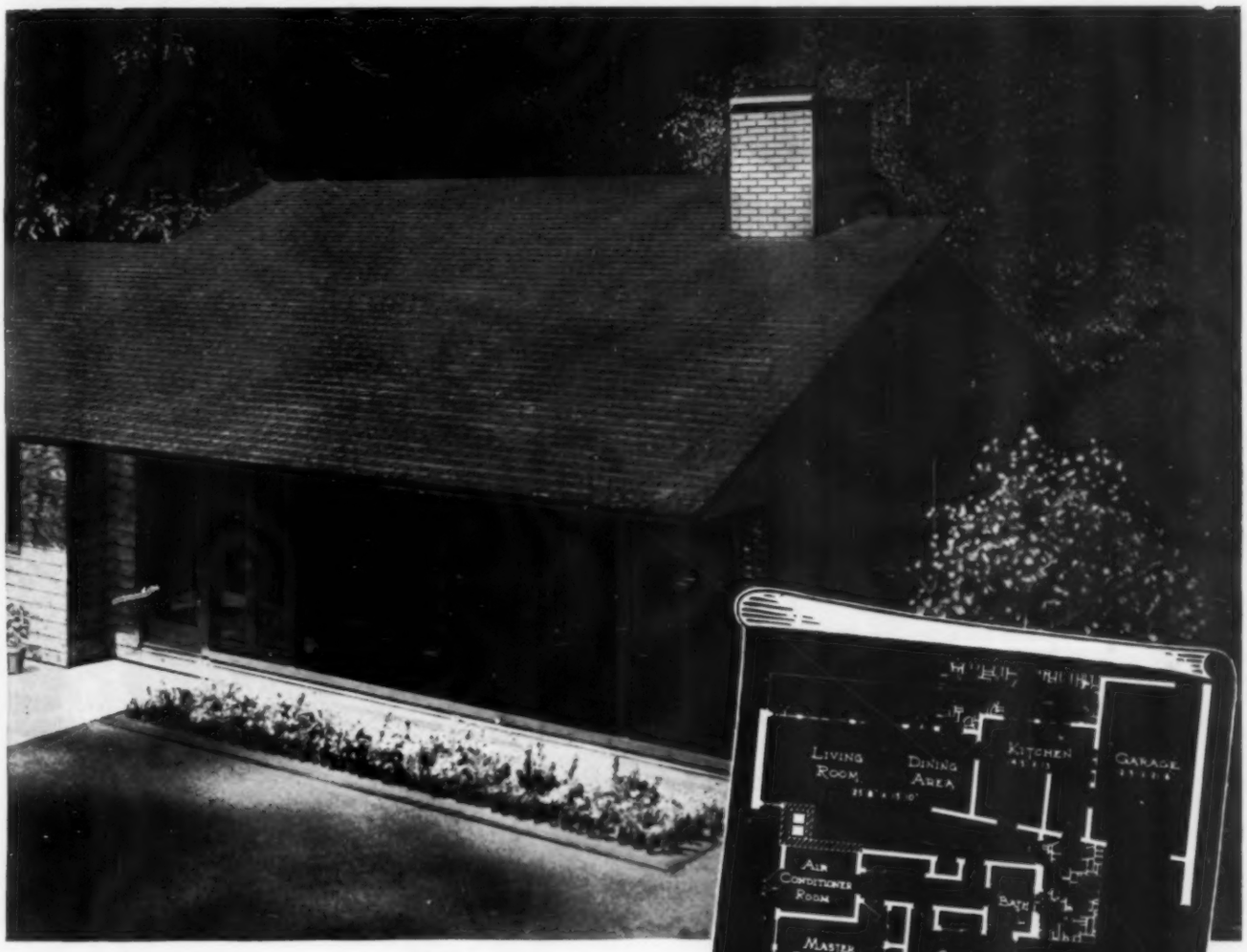
Co-sponsored by Servel, Inc., and Better Homes and Gardens Magazine, The Flame of Freedom House provides the last word in a modern, moderate-priced home. Thanks to scientific planning and all-gas equipment, it brings new freedom to average-income families—freedom that results in greater comfort, convenience, health, and safety. Yes, freedom has been literally built into the plans. For—in addition to large rooms, abundant light, a picture window, and generous closets—this home is air-conditioned year round by Servel . . . food is protected night and day by Servel . . . hot water for every household use is provided around the clock by Servel. You'll find the complete story of the Flame of Freedom House in the February issue of Better Homes and Gardens Magazine.

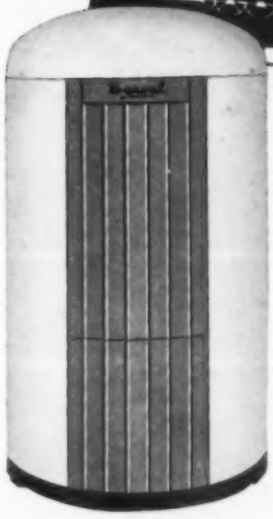
The Servel ALL-YEAR Gas Air Conditioner

The Flame of Freedom House was especially designed for Servel *All-Year* Gas Air Conditioning. This means that families living there will be forever free from summer heat, winter cold, dirt, draughts, humidity, pollen and prowlers. And yet, this home costs little more than an ordinary home with a good winter heating plant. Planning a house around air conditioning makes many savings possible. No basement excavation is needed. Porch, screens, and storm sashes are eliminated. And the cost of duct work can be held to the minimum.

Servel Inc.

EVANSVILLE 20, INDIANA





The Flame of Freedom House was designed by the distinguished architect DAVID SEARCY BARROW as one of the 5-Star Homes (*plan No.* 1902) sponsored by Better Homes & Gardens Magazine. This house was reproduced and demonstrated at the Atlantic City Auditorium during the American Gas Association Convention, October 4-8, 1948.

SEE MODEL AT BUILDERS' SHOW

You can see a model of the Flame of Freedom House in the Servel booths 90-93, at the Builders' Show in Chicago . . . February 20-24. And for a free illustrated booklet, write to Servel, Inc., Evansville 20, Indiana.

The Servel GAS Refrigerator

The different Servel Gas Refrigerator certainly occupies a dominant place in the Flame of Freedom House. For this is the only refrigerator that assures owners freedom from the noise and wear of moving parts. That's because Servel doesn't have a single piston or pump, valve or compressor in its entire freezing system. A tiny, silent gas flame does all the work. And, of course, the Gas Refrigerator offers every worthwhile cabinet feature, including a spacious frozen food compartment, moist cold, dry cold, and a big flexible interior.

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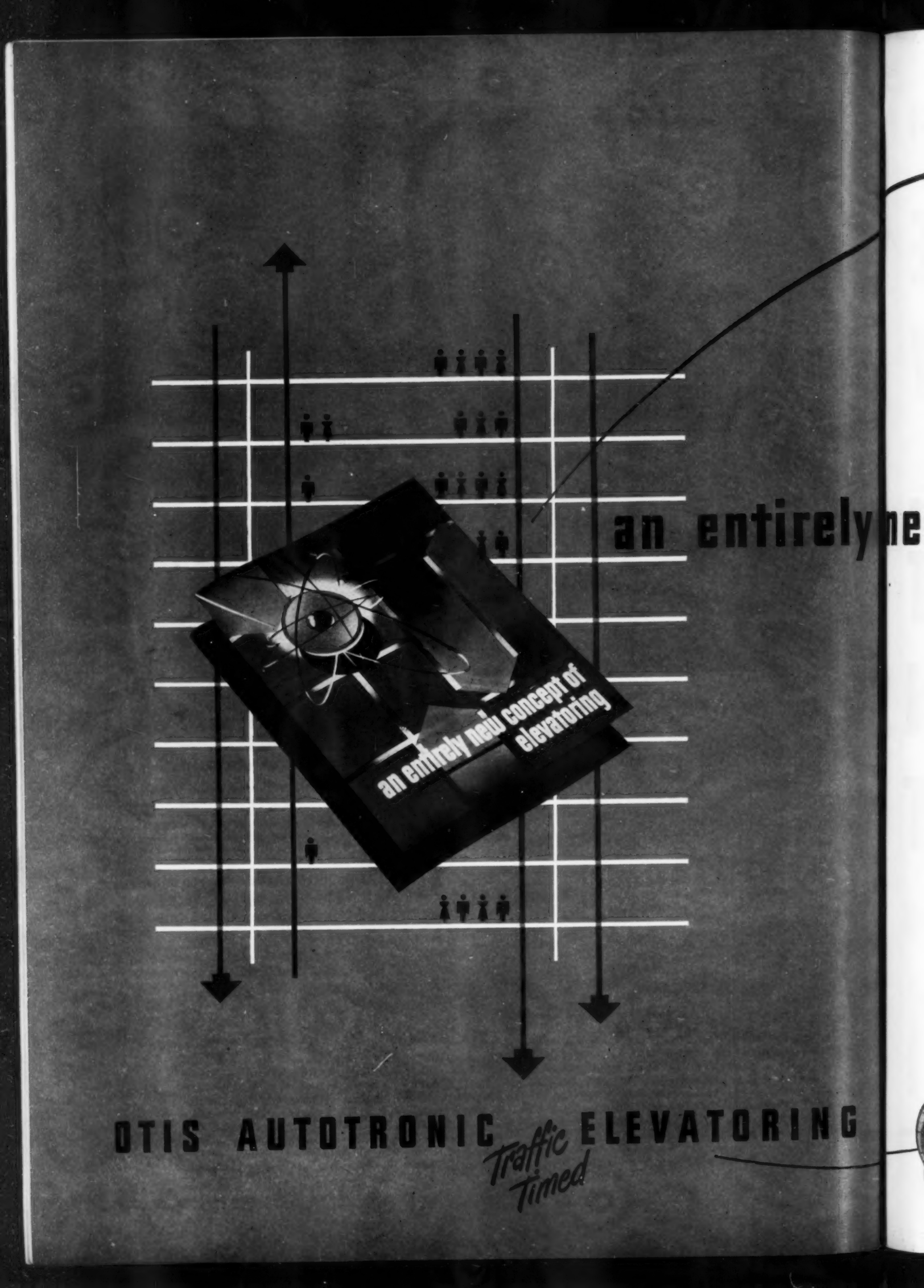
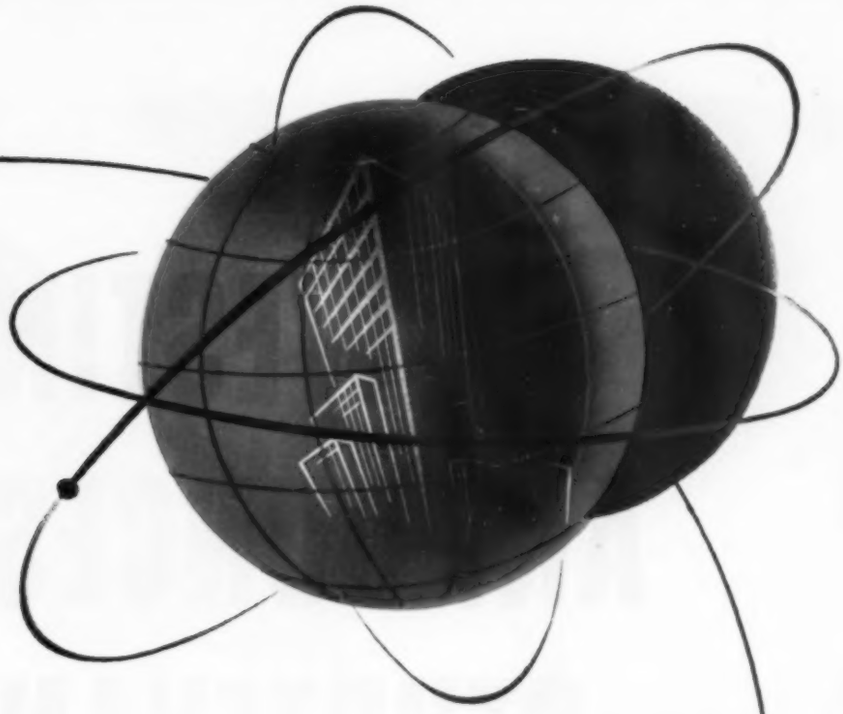
The presence of the ball-type gas water heater brings freedom from work, worry, delay, drudgery. Based on a new, different operating design, Servel delivers all the hot water needed for modern living's rapidly increasing requirements, including the huge demands of automatic washing appliances. And yet, Servel has a lower operating cost, greater safety and durability than any other heater made. Thus unmatched efficiency and service is the result of Servel's exclusive copper ball tank, internal heat-exchanger, and double insulation.


an entirely new concept of elevatoring
an entirely ne
OTIS AUTOTRONIC Traffic Timed ELEVATORING



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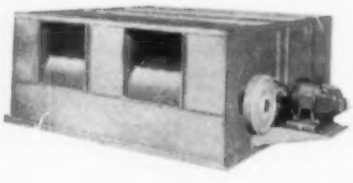
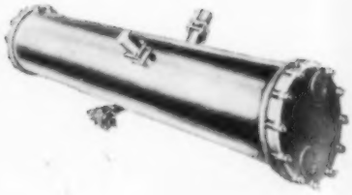


AIR HANDLING UNITS

UNIT HEATERS

CENTRIFUGAL FANS



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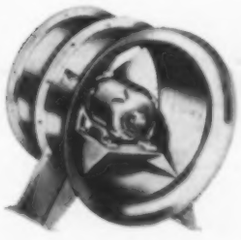
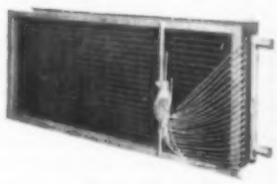


AXIAL FLOW FANS



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THE BRITISH TECHNICAL PRESS

By JOHN RANNELLS

Beginning this month, the P/A reviews of technical publications take on a slightly different form. Heretofore they have been factual accounts of selected articles, only occasionally spiced with editorial comment. But henceforth John Rannells will discuss each month a fraction of the technical press serving a definable field: this month, British publications; next month, educational publications in the United States; again, French publications; another time, heating and ventilating magazines, etc.

F.G.L.

CHASE NATIONAL BANK, PETER COOPER VILLAGE BRANCH
Architects: Shreve-Lamb-Harmon

Photo by Vassar

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Architects in England have their choice of a considerable variety of publications to aid them in keeping up with what goes on. The chief impression gained from a review of all these publications* covering a period of several months, is one of richness and completeness of presentation. Of course the different magazines answer different needs and each has its specialty. Perhaps no architect would be content with only one of them.

Of the three "general" monthlies, *Official Architect* is the slightest, catering to "salaried architects and all interested in civic design." *Architectural Design* presents photos and drawings (with strong leanings toward fine appearance) of current architecture in all countries. Its "American Review" frequently gives us a fresh look at our own work that's so near that we don't see it. *Building Digest* is just that, covering whatever is being built or planned from South America to Finland, with the emphasis on construction methods and development of building types. A current series of articles covers nonferrous metals very handsomely, with excellent photographs and construction details. All these magazines print outspoken editorials seeking to better the present scheme of things in planning and building.

The *Journal of the Royal Institute of British Architects* carries full accounts of meetings at the Institute, and the papers read there together with the discussions and ample illustrations. As the British architects are both literate and vocal and accustomed to exchanging technical knowledge, the *Journal* is a rich mine of information and opinion. Articles on current problems, of which Government regulations form the most pressing, and a fair number of articles on architectural history or archaeology fill out the pattern. Reviews of materials and books are thorough but not lengthy.

Comparison of the *RIBA Journal* with our own *A.I.A. Journal* and *Bulletin* is inevitable, and shameful. There is very little basis of comparison, really, for

(Continued on page 96)

* *The* Journal of the Royal Institute of British Architects; *the* Architectural Association Journal; *the* Architectural Review; Official Architect and Planning Review; Architectural Design *(formerly* Architectural Design and Construction); Building Digest—*all monthlies published in London.* Journal of the Town Planning Institute, *quarterly;* Town and Country Planning, *bi-monthly; the* Architects' Journal, *weekly—also London.* Building and Engineering, *monthly, Sydney, Australia.* Journal of the Royal Architectural Institute of Canada, *monthly, Toronto.* Architecture in Ireland, *yearbook for 1946; the* Royal Institute of the Architects of Ireland, *Dublin.*

Not too hot
Not too cold
but jus-s-st right!

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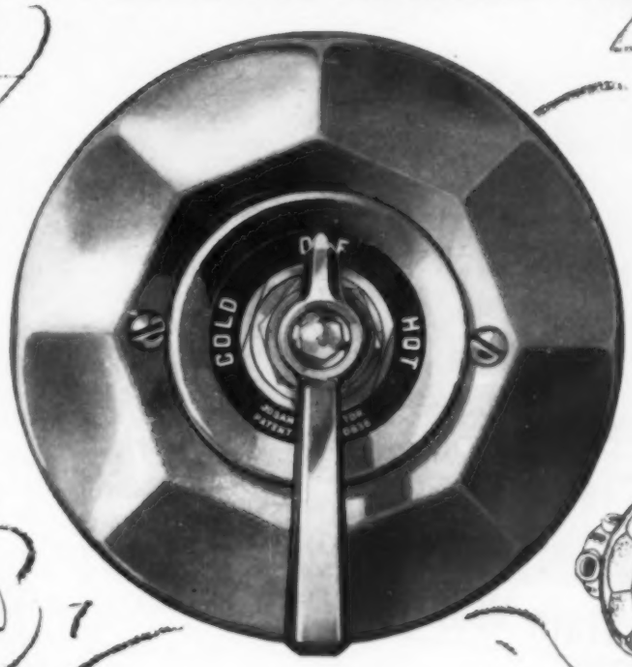

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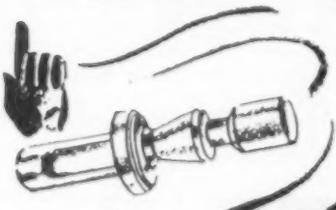
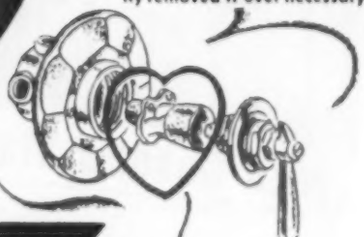
● A hydraulic shuttle valve is the only moving part—hot water shuts off automatically if cold water supply fails.



● Simple in construction—all working parts are combined in a "heart-of-valve" unit—easily removed if ever necessary.



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Reviews

(Continued from page 94)

the one is at the center of all that's going on in architecture, construction, and building science while the others are but apologetic reflections of what has already happened. Perhaps we are too busy to bother beyond our own work but we certainly do leave everything else to the other fellow. Yet we think of the Britisher as holding aloof from his fellows.

The Architectural Association is a hundred-year-old draftsmen's organization —a very solid one—with its own professional school and ample representation through its older members in the *RIBA*. The *A.A.'s Journal* is occupied mostly with the accounts of its own lively meetings, with discussions and illustrations. A particularly interesting meeting last April was conducted in French, out of deference to Auguste Perret, who had just been presented the Royal Gold Medal by the *RIBA*. This ancient rebel against the Beaux Arts, developer of reinforced concrete (from 1900 or so), builder of his own work (horrors!), master of clean expression of function and structure, had replied warmly but briefly the evening before on receiving the Gold Medal. To the junior body he gave "a summary of the reflections which I have made during a long life" which sounds much like Louis Sullivan, but a Sullivan who kept on producing and outlasted his antagonists. Here's a fragment:

Architecture is, of all forms of art, that which is the most subject to material conditions. The conditions imposed by nature are permanent; transitory are those imposed by man.

Climate, with its inclemencies; materials and their properties; stability and its laws; vision, with its deformations; the eternal and universal sense of lines and of forms; these things impose conditions which are permanent. Function, use, regulations, fashion; these things impose conditions which are transitory . . . The transitory conditions and the permanent conditions having been satisfied, the building, thus obedient both to man and to nature, will have character and style and will be harmonious.

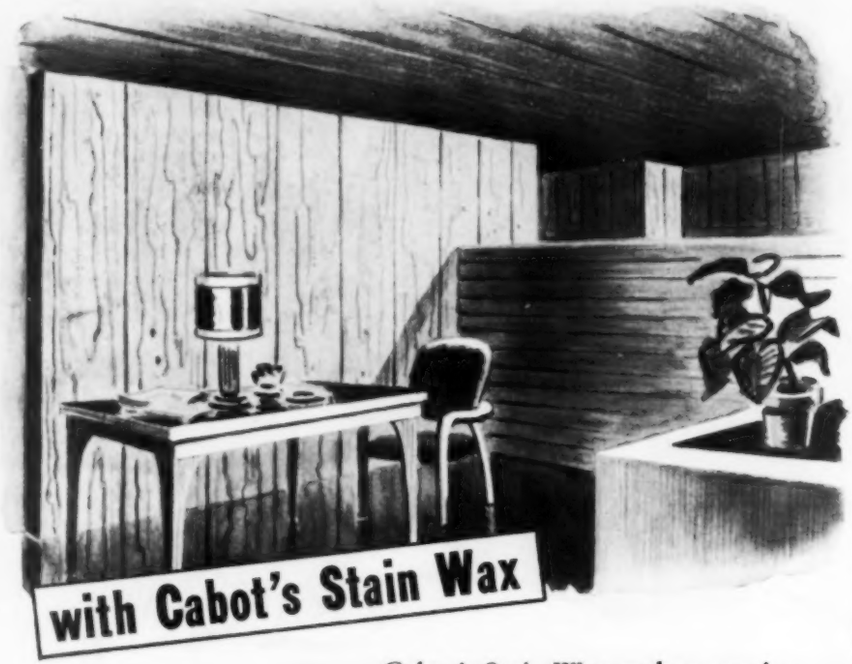
Of all the British publications the *Architectural Review* is the only one that goes in for sophistication. They do a handsome job of it, with occasional full-color plates and slick letterpress and colored pages now and then to enhance the format. There is much concern with format—as abstract art, I suppose. How else explain such unfunctional clichés as placing the page number at the center fold where it is of little use or composing the captions for a page of cuts in a "gray block" of very small print so that it's more trouble than it's worth to find out what designations the "Hon. Editors" chose to give the illustrations? The illustrations are invariably handsome, for after all the editors' chief concern is with "style" (and controversies about it).

They do grand work in archaeology (recent) with richly illustrated articles on history of landscaping and Victorian houses and Australian architecture and even present-day Scandinavian work which they embalm with the "New Eclecticism" label. They quite disregard the architect's concern with scale. When they reproduce plans or sections they fit the drawing into the composition of the page, regardless. One can't tell whether the building is designed for pigmies or giants.

The one periodical which covers everything, the *Architects' Journal* (registered as a newspaper), appears weekly. It is a marvel of concise information. A workmanlike use of uniform headings and the display value of different type sizes makes it possible to pack the weekly grist of notices, news items, reports of meetings, book reviews, reports on materials, notes on practices,

(Continued on page 98)

Unique Interior Effects



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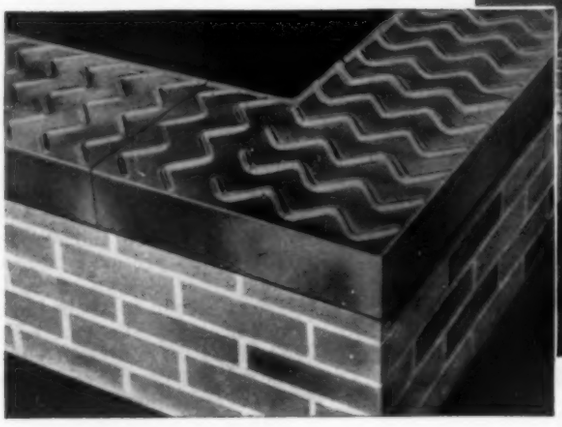
drains itself *dry* on a level bed



Wherever through-wall flashing is specified, as at parapets and in masonry walls, this patented Anaconda flashing offers both efficiency and durability. The design of Anaconda Through-Wall Flashing provides a complete mortar bond and prevents lateral movement in *any* direction.

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Reviews

(Continued from page 96)

etc., so closely that nearly half of the allotted 22 pages can be given over to full spreads of current buildings and town plans, always with large photographs and legible drawings reproduced at a designated scale. The editorials are strong: all for getting on with the main job of architecture today. The reporting is factual and surprisingly complete, when the editors feel that the material is valuable. For example Siegfried Giedion's talks on "Painting, Sculpture, and the Architect" are given thorough coverage, even including notice of the New York reflection (at the Museum of Modern Art Symposium led by Lewis Mumford last fall) of the controversies on style which so concern the *Architectural Review*.

The Editors' weekly page of Notes and Topics (signed *Astragal*) are most lively and pointed; tolerantly amused at all the goings-on but not hesitating to speak out against blunders or point to the foibles in our cherished clichés. His reaction to a recent symposium (in the *Architectural Review*) on Monumentality is worth quoting:

They make stimulating reading, but is the problem in fact one which worries architects today to the extent that these contributors imply? The reason that most architects design monumental buildings so indifferently is due, surely, not to lack of practice and opportunity, not to lack of lectures about it. It is certainly instructive to have the true meanings of the word monumentally reassessed . . . but as I ploughed along I felt strongly—as at Giedion's lecture the other day—that I was watching an artificial battle of historians and critics —a sort of formalized ballet which was pretty enough to watch . . . but whose results in the end might only serve to make those of us who practice even more self-conscious than before when faced with this particular problem.

The concentration in England on town and country planning is intense—almost as intense as the concentration on foreign trade. Whatever resources go into building are devoted to housing almost exclusively—permanent housing, designed with decent regard for the next generation, much of it in new towns, fitting into the regional patterns of decentralized industry. All the architectural press is full of planning; the planners' own periodicals are of course richer in their handling of the technical aspects. One of the greatest problems is training of planners to staff the necessary offices all down the line, for every municipality in England is obliged to make up a survey and development plan within three years. The *Journal of the Town Planning Institute* (bi-monthly) and *Town and Country Planning* (quarterly review of the Town and Country Planning Association) give careful coverage of the professional planners' world.

We have just one Australian periodical, *Building and Engineering*, official journal of the Master Builders' Federation of Australia (and the Illuminating Engineering Society, H. S. W. Section, which takes up a few pages of each issue). They publish a lot of very ordinary current Australian work and brief illustrated notices culled from the architectural press all over the world. As might be expected, this publication has no attitude toward architecture and gives no basis for judging architectural thinking in Australia. It is interesting chiefly for its reflection of our own work—what we do that interests them. The Illuminating Engineering Society reports are like ours, of high quality. A paper by H. G. Fallon in the July issue, "Pharos and Helios," is a keen discussion of the Moon and Spencer proposals for a new international photometric nomenclature—and a keen analysis of the general problem of conveying

(Continued on page 100)

KENILWORTH HOTEL
MIAMI BEACH, FLORIDA
Roy F. France & Son
Architects

Designed for exterior beauty as well as for indoor comfort, Gate City Awning Windows lend interest to the architectural design of this well known hotel. From the strictly formal pattern made by the closed sash to the distinctive lacy effect of the open tiers, the result is always pleasing. Even when the sash are opened their widest, the window space does not resemble a "hole in the wall".

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Gate City Awning Windows permit both the apartment dweller and the hotel guest to "tailor" the ventilation to their needs. These windows have twice the ventilating area of ordinary windows. A few easy turns of a handle open them to the exact degree desired.

When open, the sash draw in the fresh outdoor air . . . keep it gently moving at the ceiling . . . cool off stuffy rooms on hot days . . . prevent rain from damaging floors and decoration. Made of wood, these windows are rigid . . . sturdy. They cannot squeak, slam, flutter or rattle—important features which add still further to the comfort of the guest.

Nation-wide installations prove that Gate City Awning Windows meet the requirements of Northern climates as well as those of the South. Vertical weatherstripping is standard; horizontal weatherstripping on order. For further information, see Sweet's, or write to Gate City Sash & Door Co., Dept. A-2, Fort Lauderdale, Fla.

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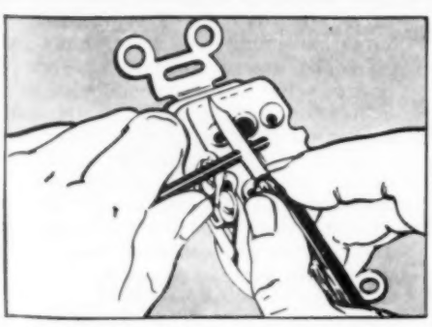
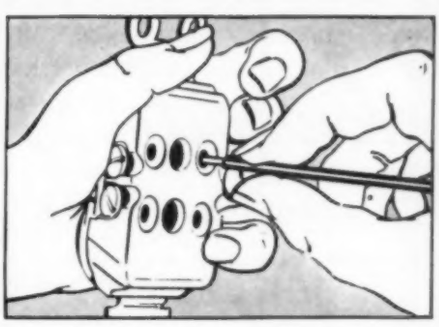
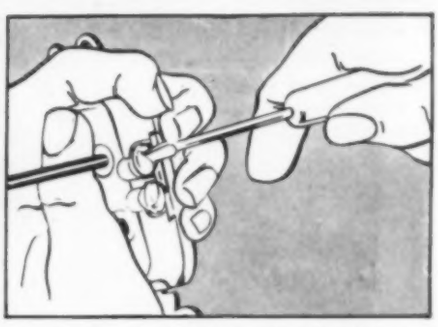


1. Strip off insulation to exact length, quickly and easily, using built-in stripping guide.



2. Loosen terminal screw — Wire stripped to correct length is inserted from back.



3. Tighten terminal screw — Individual clamps grip securely with no exposed wire.

Reviews

(Continued from page 98)

information by lecture or the printed word.

For a grand exposition of Australian architecture, see the *Architectural Review* for July 1948. This special number is devoted to background architectural history and current work and gives a strong impression of likeness to our own west—a raw, vigorous country to start with, growing up through a "correct" eclectic period and now striking out with good honest contemporary work without deference to "style." An even richer handling of architecture in one province is "Victorian Modern," reviewed in the December 1947 issue.

Architecture in Ireland, yearbook for 1946 of the Royal Institute, takes a very hopeful stand in small compass. The presidential address shows the older men interested in progressive developments, with a plea "to solve our own problems, affected more by the atmosphere around us than by memories of things we have seen in other lands."

There are only two articles: an excellent description of shell construction by Ove N. Arup and a tantalizing critique of architectural critics (and architects) by Niall Montgomery. Inclusion of the first shows them alert to this latest great advance in the means of enclosing space—an advance which we in this country have scarcely realized. The second, in the best satiric Irish vein, is a plea for anonymous architecture—"It cannot be too strongly emphasized that suitable buildings are buildings which are scarcely perceptible."

Letters from Oud, Wright, and Gropius and publication of several fine contemporary buildings show which way the Institute is looking (or at least the group that published this yearbook).

The *Journal of the Royal Architectural Institute of Canada* resembles our own leading architectural magazines in appearance and range of material covered, but in condensed form, plus a great deal of attention to student work and the schools. It is concerned with what is happening of significance in architecture and what is going to happen, with excellent articles on building research, city planning, etc. Its strong progressive leadership is very different from our own A.I.A. publications which seem to be always trying to catch up with the procession.

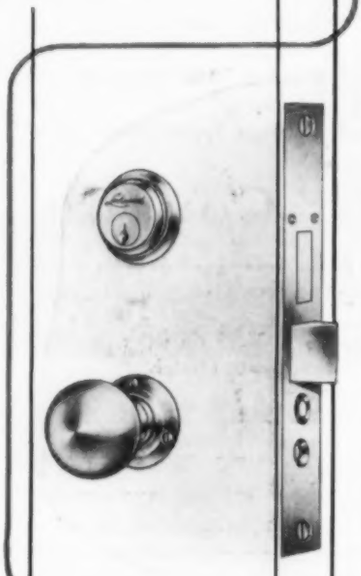
Great Britain's national economy is still on a war footing with full concentration on rehabilitation of the country and recovery of foreign trade. The whole country is being replanned. Industry is becoming decentralized through stringent control of building materials. (Materials are assigned only in approved areas, gradually forcing factories away from overbuilt areas.)

Architects have little to work with but town planning and schools and public housing and community buildings and some factories. They would rather have a full range of work but they are attacking their present problems all-out, with great energy and even some enthusiasm, looking for better times ahead.

Government activity in planning is closely followed in the technical press. The Minister of Town and Country Planning and the Minister of Health and leading government technicians address the Institute. The profession at large is keeping pace with what's going on to an extent unheard of here and assumes its full responsibilities of coordination and leadership. Of course this is all easier in Britain, with about a third of our population, a thirtieth of our area, and full concentration on urgent needs. We are so busy with immediate work that we don't generally take time to think or even observe what others are doing.

(Continued on page 102)

Some hardware makes a big difference . . .



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"—the building is most satisfactory in every respect"

Above: a strikingly handsome structure is The Northernaire, country club hotel and spa, at Three Lakes, Wisconsin. Stanley W. Howe, A.I.A., Architect, Monroe, Wisconsin; Cy Williams, designer and builder, Three Lakes, Wisconsin.

Left: one of the beautifully appointed bedrooms in The Northernaire.

The famous resort hotel and spa, The Northernaire, at Three Lakes, Wisconsin has steel-framed floors and walls. "Because," owner Carl Marty, Jr. says, "low maintenance cost was essential and the lasting quality of Stran-Steel floor joists and studs was considered more important than initial cost. Stran-Steel framing was the recommendation of our designer and builder, and was immediately available. No condensation, plaster cracking or sound-conduction have developed. The building is most satisfactory in every respect."

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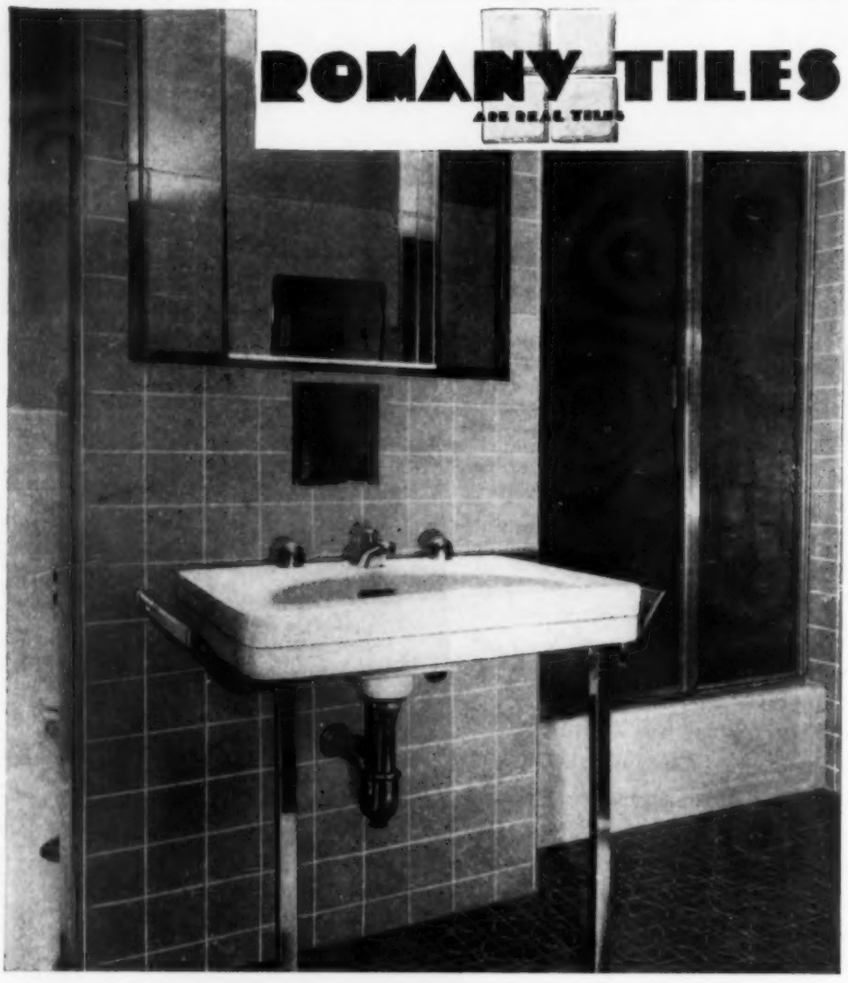
Reviews

(Continued from page 100)

It is a bit baffling to find that the outstanding publications with opinions, the *Architects' Journal* and the *Architectural Review*, are apparently put out by the same house. Their opinions are strongly opposed. The *Journal* is all for sensible contemporary architecture, handsome of course, but all based on solving human needs. The *Review* is not interested in the pressing problems of the day. It speaks rather in the "long-hair" tradition of Renaissance and eclectic architecture of a generation ago —all visual esthetics—but says it in the modern idiom, charting a graceful meander between the tenets of "the latter-day Functionalists" and what *Astragal* calls the "Pswedish-Sunblind-Trellis-Indoor-Ivy manner with which we are all so familiar." They get lost sometimes away from the sure comparisons of the architectural historians but that's the hazard of trying to make archaeology out of architecture that isn't dead yet.

The live goings-on of the day in planning and government, building, and architecture are all noted in the *Architects' Journal* while the architects' own meetings with their richly illustrated lectures and lively discussions are fully documented in the Institute *Journal*. The *Architectural Review* makes a real contribution with its thorough studies of particular periods or fully-rounded reporting as in the special Australian number noted above. These three publications all go rather beyond anything of the sort in this country.



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AIR AND TEMPERATURE

Heat Pump Installations in Switzerland. H. C. Goddard, p. 65, *Architectural Association Journal*, Oct. 1948

Unit Heater Types and Their Use with Various Steam Pressures. G. S. Whittaker, p. 77, *Heating and Ventilating*, Oct. 1948

Possibilities for Heat Pump Expansion. E. N. Kemler, p. 80, *Heating and Ventilating*, Oct. 1948

How to Avoid Condensation Troubles When Using Cold Primary Air Ducts. John Everetts, Jr., p. 71, *Heating, Piping & Air Conditioning*, Nov. 1948.

More About Panel Heating. K. R. Rybka, p. 402, *Journal, RAIC*, Nov. 1948

Radiant Heating and Cooling. G. Lorne Wiggs, p. 336, *Journal, RAIC*, Sept. 1948

CONSTRUCTION

First Costs Don't Tell the Whole Story. (Effect of operating expenses on plant design). Nomer Gray, p. 102, *Engineering News-Record*, Oct. 28, 1948

Welding Conserves Steel. T. R. Mullen, p. 104, *Engineering News-Record*, Oct. 28, 1948

Shop Fabrication of Wood Trusses and Laminated Beams Expedites Erection and spurs Low-Cost Building. Verne Ketchum, p. 106, *Engineering News-Record*, Oct. 28, 1948

Stretching the Concrete-Building Dollar. (Several techniques on better concrete construction for less money). Arthur J. Boase, p. 109, *Engineering News-Record*, Oct. 28, 1948

Hospital Construction Costs Can Be Cut. Isadore Rosenfield, p. 96, *Engineering News-Record*, Oct. 28, 1948

(Continued on page 104)

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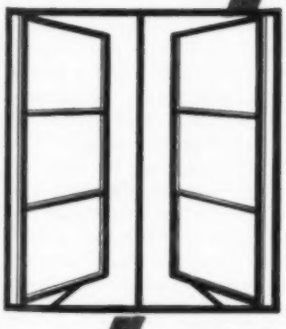

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Reviews

(Continued from page 102)

Time-Saving Expedients Cut Over-All Costs of New Plants. George H. Miehls, p. 99, *Engineering News-Record*, Oct. 28, 1948

Tilt-Up Construction Used on Two-Story Building in Vancouver. Eugene S. Paone, p. 12, *Architectural Concrete*, Vol. 13, No. 2

Deft Material Handling in Limited Area Expedited Erection of Skyscraper. Robert McLean, p. 88, *Engineering News-Record*, Nov. 11, 1948

Lustron's $14,000,000 Gamble. (Pretty complete story of the house, its production, its headaches before finally getting started). p. 60, *Engineering News-Record*, Nov. 25, 1948

What Causes Corrosion of Metals? William H. Lang, p. 64, *Heating and Ventilating*, Nov. 1948

Some Notes on Vibration in Structures. R. H. Wood, p. 553, *Journal, RIBA*, Oct. 1948

Structures for Industrial Building. C. D. Carruthers, p. 397, *Journal, RAIC*, Nov. 1948

LIGHTING

The Daylighting of Factories. J. B. Bickerdike, p. 490, *Journal, RIBA*, Sept. 1948

OFFICE PRACTICE

Mechanizing Construction Accounting. (Advantages of replacing hand labor by machines in construction offices). Clifford S. Strike, p. 101, *Engineering News-Record*, Oct. 28, 1948

Study Shows Half U. S. Cities Lack Adequate Building Codes. F. S. Merritt, p. 7, *Engineering News-Record*, Dec. 2, 1948

Charts to Obtain Solar Altitudes and Azimuths. Irving F. Hand, p. 86, *Heating and Ventilating*, Oct. 1948

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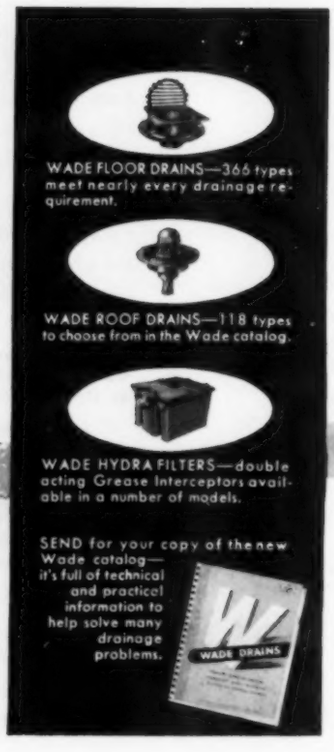
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BOOKS

THE HOME OF MAN

Le Corbusier and Francois de Pierrefeu. Architectural Press, London, England, 1948. 156 pp., illus. 10s, 6d

At first glance this seems to be simply one more restatement of Le Corbusier's principles—the 24-hour cycle—the sequence of "dwell, circulate, work, and improve oneself"—the linear town and the multistory building—with text by Pierrefeu and drawings by Le Corbusier. But the climax this time is a bit frightening to this reviewer. One is led up the planning and building sequence to an individual at the top to be known as "the law giver"—"a controlling genius with wide powers, the discipline of lesser men being taken for granted." No thanks.

T.H.C.

SCHOOL ANNUAL

The American School and University *American School Publishing Corp., 470 Fourth Ave., New York 16, N. Y., 1948. 262 editorial pp., 364 catalogue pp., illus. $4.00*

The 1948-49 issue of this annual maintains the high standards it has set in

(Continued on page 106)

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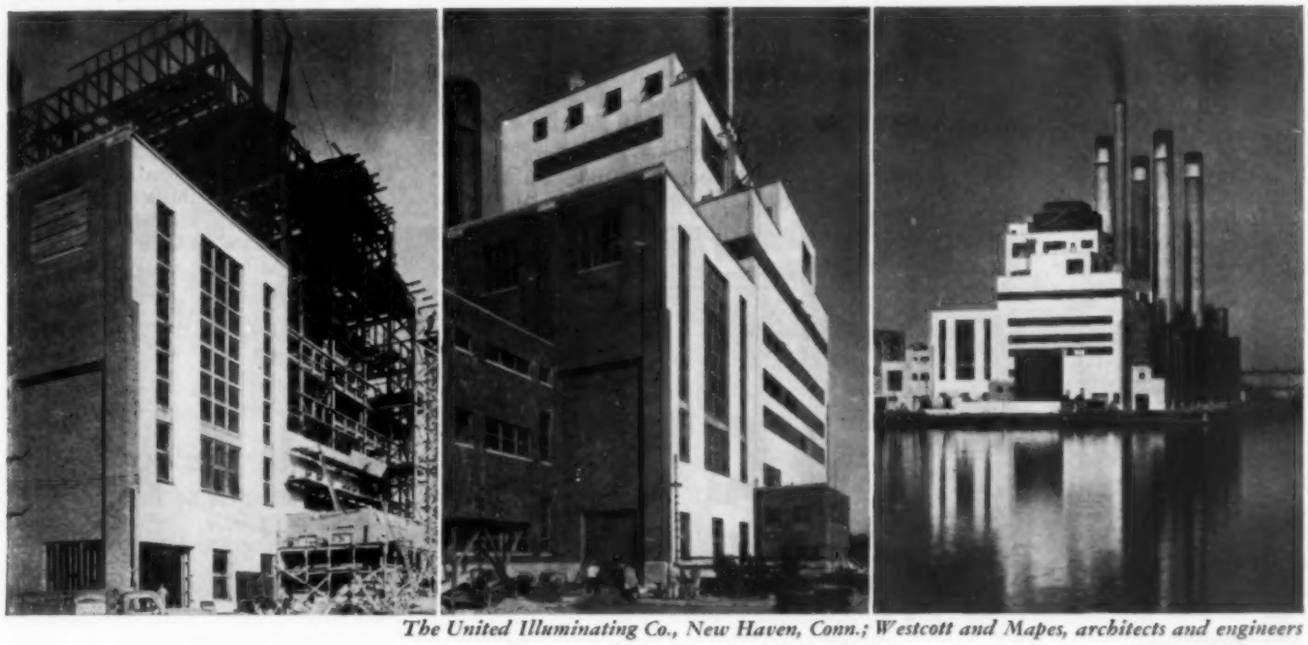

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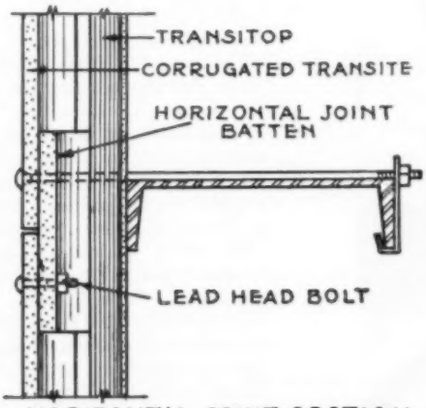

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● Here's a case in which a unique form of asbestos wall construction solved a tough building problem.

The addition planned was to be almost twice the height of the original building, yet where the two joined, existing foundations were to be used. This meant that the new bearing wall with all its extra height should weigh no more than the old wall.

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This type of construction, compared with solid masonry, reduced the load-bearing factor from 120 to 20 pounds per square foot! It also provided fire protection, insulation, and permitted the use of less extensive pilings and foundations for the rest of the building.

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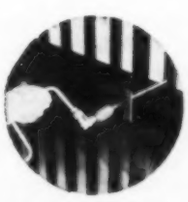

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EASY TO SAW

EASY TO DRILL

EASY TO NAIL TO WOOD

Johns-Manville *Asbestos* **CORRUGATED TRANSITE**

Reviews

(Continued from page 104)

recent years. Editorial material discusses many theoretical as well as specific and practical aspects of school planning, design, and construction. Among the architect-authors are Lawrence Perkins, Hermann Field, Henry Churchill, Carl Feiss, Lorimer Rich, and others. The catalogue section is a fairly complete directory of products needed for the school plant. T.H.C.

THE ABSTRACT ARTS

Painting Toward Architecture. *Henry-Russell Hitchcock. Duell, Sloan & Pearce, Inc., 270 Madison Ave., New York 16, N. Y., 1948. 118 pp., illus. and index. $6.00*

Holding the thesis that "architecture has always been essentially an abstract art" (deriving only a limited number of its minor elements from direct imitation of natural objects), an authoritative critic-historian here considers the impact of abstract painting, a 20th Century expression, on the forms of contemporary architecture. He seeks, at the same time, to demonstrate the potential value to contemporary architects of a carefully chosen array of abstract paintings and sculptures. His text is based on the distinguished art collection of The Miller Company, of Meriden, Connecticut, from which the handsome illustrations of the book are selected. The possibilities of thus bridging the distance that too many architects have put between themselves and modern painters and sculptors are heartening. C.M.

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DUSTING THE IDOLS

An Introduction to Regency Architecture. *Paul Reilly. Pellegrini & Cudahy, Inc., 65 Fifth Ave., New York 3, N. Y., 1948. 96 pp., illus. $2.50.* **An Introduction to Victorian Architecture.** *Hugh Casson. Pellegrini & Cudahy, Inc. (see above), 96 pp., illus. $2.50*

A special gaiety and brilliance was imparted to urban architecture in England in the early 19th Century by what became known as the Regency style. This book was written to introduce the few examples of Regency building while they still exist, and to explain the historical role of Regency as a follow-up to the Georgian style and as an experimental period for new materials and designs.

Reilly put Regency buildings into three categories, first being the "royal or terrace architecture," recognizable by stucco façades, boldness of classical architecture, columns, capitals, and palatial air. Seen at a distance they resemble single palaces instead of rows of identical houses. Secondly, there are "the royal whims of grandeur," the exotic touches of the Orient, domes, minarets. And finally, more soberly disregarding the Eastern influences, is the widely executed domestic phase, characterized by the plain stucco surfaces, rich iron work, bow windows, and balconies, with the Napoleonic wars forcing the use of the cheapest materials to obtain the grandeur and palatial effect which distinguishes the Regency period.

•

Believing the easy branding of Victorian architecture as "the least attractive legacy of an age noted more for the abundance than for the quality of its artistic achievement" to be unfair to the buildings themselves and to the men—Pugin, Ruskin, William Morris—whose ideas dominated 19th Century architecture, Hugh Casson has written a compact survey of the Victorian style.

(Continued on page 108)

THESE STANDARD WINDOWS GIVE YOU

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Notice the unusual treatment of graceful Fenestra Residence Steel Casements in this beautiful residence at Shades Mountain, Birmingham, Alabama. The inset shows the bright living room of the home. Architect: D. O. Whilldin, Birmingham.

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Reviews

(Continued from page 106)

Architecture reflects all phases of contemporary life and times. The Victorian era "was confused, romantic, packed with incident," so the resulting architecture displays the same qualities, preserving through buildings of every kind the conflicts between faith and science, social reform and commercialism, all with emphasis on the struggle for individualism.

The Victorians "expected every building . . . to tell a story, and preferably to point a moral as well. The Victorian architect was a man of his own period, and responded to this demand with a will, borrowing motifs from every country and period at his command." Thus, the architecture of the era became "paper architecture, divorced from honest building and direct design." But, Casson suggests, before dismissing Victorian architecture as "just a pageantry of overdurable problem pictures," one should ponder on the "uncertain and trivial architecture of our own time."

M.W.K.

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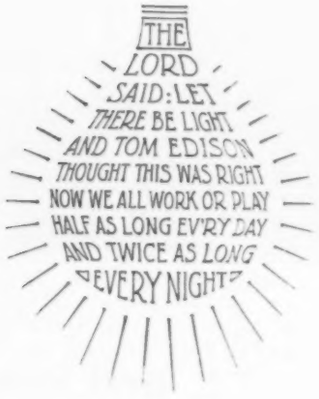
POETIC FORMS

Geo-Metric Verse. *Gerald Lynton Kaufman. The Beechhurst Press, New York, N. Y., 1948. 64 pp., $1.50*

Poems described as "poetry forms in mathematics, mostly for fanatics." This New York architect writes amusing, smoothly flowing light verse designed to fit into geometric and architectural forms, like this:

LIGHT VERSE



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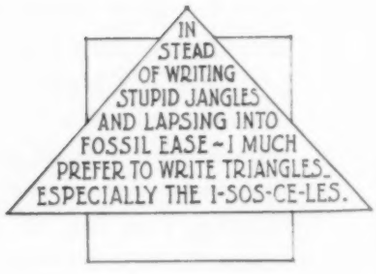

His ability to design poems that read as trapezoids, ellipses, triangles, etc., and that still read, is an aspect of professional practice that is all his own.

T. H. C.

SURGING CITIES

Greater Boston Development Committee, Inc., Boston, Mass., 1948. 287 pp., illus. $2.25, paper covers; $3.00, board covers

The book is in two parts: Part I dis-

(Continued on page 110)

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Reviews

(Continued from page 108)

cusses the major physical planning problems of urban regions; Part II is a specific discussion of the problems of the Greater Boston region. The work is simple in its style and sufficiently objective and all-inclusive in its subject matter to warrant being used, as the Committee hopes it will, as a supplementary civics text for secondary schools. It should also act as a good introduction to the subject for anyone unfamiliar with planning problems.

T.H.C.

SYMPOSIUM REPORT

American Planning and Civic Annual. *Edited by Harlean James. American Planning and Civic Assoc., 901 Union Trust Bldg., Washington, D.C., 1948. 180 pp., $3.00*

Primarily a symposium based on papers read at the Citizens' Conference on Planning held at Newark, N. J., in May 1948. Much of the text is wordy and repetitious, but there is real meat for the careful reader.

T. H. C.

CHURCH PLANNING RULES

Churches: Their Plan and Furnishings. *Peter F. Anson. Bruce Publishing Co., 540 N. Milwaukee St., Milwaukee 1, Wis., 1948. 242 pp., illus. $6.50*

Anticipating that wartime destruction of churches would result in a large-scale revival of church building and remodeling, the author prepared this detailed guide to liturgical requirements and building needs of the Catholic churches hoping "to ensure that money was not wasted on superfluous ornament but devoted to essentials." Sharply scoring as "bad" any church that is inconvenient for public worship (no matter how picturesque, beautiful, or devotional in atmosphere), Anson describes the traditions and exact simple prescriptions for Catholic ritual and worship. Throughout, he pleads for practical solutions of the church problem—rather than stylism or "art" or "good taste." Small comfort for professional medievalists or smug classicists!

C. M.

(Continued on page 112)

EXTERIOR-TYPE
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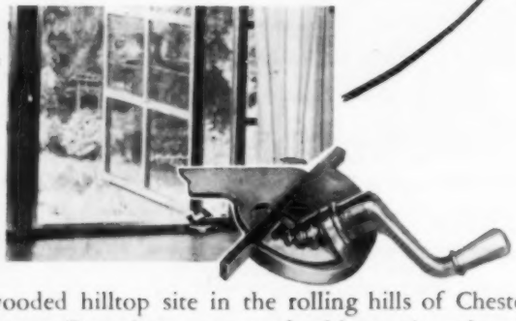

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Reviews

(Continued from page 110)

GUIDE FOR TEACHING

Education for Professional Responsibility. *Carnegie Press, Carnegie Institute of Technology, Pittsburgh, Pa., 1948. 207 pp.*

A report of the proceedings of the Inter-Professional Conference on Education for Professional Responsibility, held at Buck Hill Falls, Pennsylvania, in April 1948. There are three parts: The Objectives of Professional Education; Content and Method in Professional Education; Social and Humanistic Aspects of Professional Education; in addition there is a brief bibliography. While there is no paper in the group which deals with architectural education as such (several are concerned with engineering education), there is much in the general discussion of professional educational aims and standards that can be applied by the architectural teacher.

T.H.C.

STORE MODERNIZATION

1948 Store Modernization Clinics and Forums. *Store Modernization Show, Inc., 40 E. 49th St., New York 17, N. Y., 1948. 182 pp., illus. $5.00*

Discussions of the essentials of store planning conducted during the Store Modernization Show last July in New York (PROGRESS REPORT in September 1948 P/A) were transcribed and are collected in this volume as a permanent record of the contributions made by a number of planning experts, merchandising specialists, and store operators. The transcripts of speeches, edited by John W. H. Evans, who manages the annual event, are here supplemented by selections from the lively and informative Question-Answer sessions that resulted. Illustrations were chosen from the slides used by the various speakers and from the exhibits at the 1948 show.

C.M.

BASIC INFORMATION

Building Supervision: Notes on Good Building Practice. *W. R. M. Pippard. E. & F. N. Spon Ltd., 57 Haymarket, S.W.1, London, 1948. 117 pp., index. 8s., 6d.*

An extremely elementary discussion of the problems of this part of architectural practice. While reference is often made to British materials and standards, much of the material is applicable in this country.

T.H.C.

Entrance and lobby in new home of the MAGIC CHEF range, St. Louis

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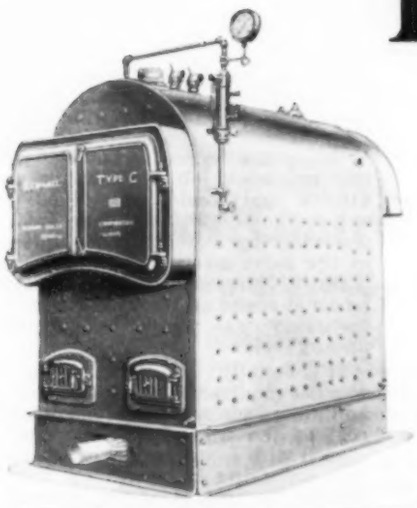

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It's the Law

BY BERNARD TOMSON

Have you had a client shake his finger under your nose and accuse you of having misled him as to the cost of the project? If this hasn't happened to you already, there is always the possibility that the immediate future may find you in this situation. Rising and fluctuating construction costs are a hazard not only to the prospective builder but also to the architect. The law provides severe penalties for *negligent* underestimates of costs or disregard of the client's express instructions as to cost limits. Facts in a recent case, *Eberhard v. Mehlman*, are of such general interest in this respect that a direct quotation from the opinion is indicated. Both the trial and Appellate Courts held that the architect who was suing for his compensation was not entitled to a recovery for the drawings he prepared for the remodeling of a liquor store. The Appellate Court in unanimously holding for the client (defendants) and against the architect (plaintiff) said:

"From the stenographic transcript and from certain documents in the case there seems to have been no dispute that plaintiff was engaged to make the drawings and that his compensation was to be four percent of the estimated cost of the work covered thereby. The dispute centered around defendants' claim (which plaintiff denied) that they had made known to plaintiff before he undertook to prepare the drawings and also while such drawings were in course of preparation that they would not spend more than $8,000, or at the most $10,000 on the work, and that despite such knowledge he prepared drawings calling for a construction cost of $19,000 or $20,000. The principal error assigned is that there was no evidence to support the finding for defendants, because there was none to show that plaintiff had been given notice of the cost limitation we have just mentioned.

There was testimony by defendants' contractor that before he took plaintiff to visit the premises he told him of the construction cost limitation which defendants had prescribed; that he repeated it to him after he took him there and introduced him to Defendant Mehlman and explained and discussed in detail the work to be done. Defendants' attorney testified that he repeated the prescribed cost limitation to plaintiff at a meeting between plaintiff, the owners, and the contractors, at which meeting plaintiff joined the contractors in expressing the opinion 'that the cost of the proposed job should not exceed $10,000 and would seem likely to be approximately $8,000.' There was also testimony by Defendant Mehlman that at the same meeting he emphasized in plaintiff's presence that $8,000 was all he could spend on the work. Clearly this testimony was ample to support the finding below.

It is equally clear that the trial judge was not required to reject this testimony and accept plaintiff's statement that the cost of the work had never been discussed with him in advance or while he was preparing his drawings. The question of the weight of the evidence was for the trial judge and not for us to determine."

Although another judge or another jury could have found differently as to the facts, this decision is in accord with principles generally recognized in the law.

(Continued on page 116)

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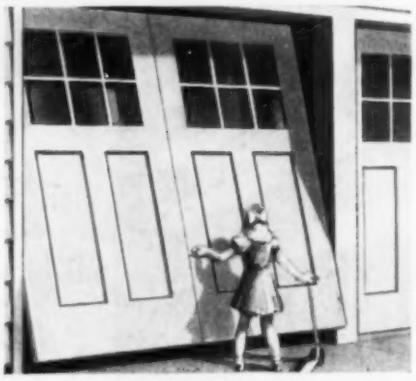

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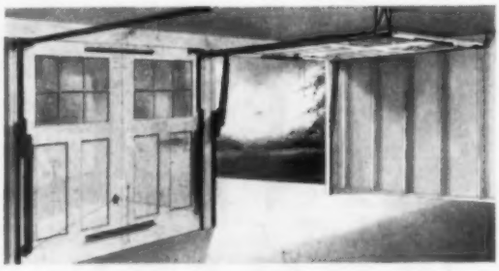

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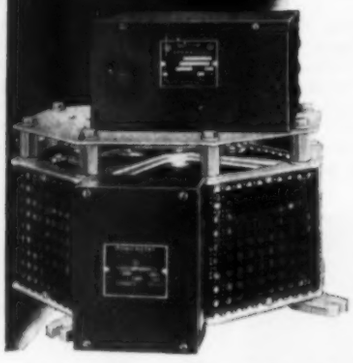

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It's the Law

(Continued from page 114)

In every contract that provides for the services of an architect there is an implied condition that the architect possesses sufficient skill, ability, and taste to enable him to perform his duties properly under that contract. The legal standard which the architect must maintain in the performance of his profession calls for the possession and exercise of that skill and care which should be reasonably and ordinarily possessed and exercised by members of the profession. The architect, therefore, in undertaking to estimate costs holds himself out as having the ability and knowledge to estimate in advance, with reasonable accuracy, the cost of buildings planned and designed by him.

An architect would, of course, not be deprived of his compensation where plans were drawn calling for construction costs in excess of the architect's estimate, when the owner approved and accepted such plans, or where the architect is required to prepare plans in accordance with desires and specifications of the owner. *However, where the architect knows or where knowledge may be imputed to him, that the owner wishes plans drawn that will call for a limited construction cost or where the contract between the parties specifically provides the same, the architect draws plans calling for a greater construction cost at the risk of losing his compensation and at the further risk of being held liable for any damages suffered by the owner.*

•

Municipalities and other governmental units enter into many contracts calling for architectural services. Many of these contracts provide that the plans to be drawn by the architect shall call for no greater construction cost than the amount of money appropriated for that purpose. There have been instances where architects have prepared plans that require construction costs greater than the sums appropriated by the legislative body in question. Courts have held that, under these circumstances, the architect may not recover the agreed price for the work he has performed or even on *quantum meruit* for these services.

One of the more interesting situations of this type arose in the City of New York, where an architect and the City negotiated a contract wherein it was stipulated that "the estimated cost . . . shall be well within the total appropriation," which in this instance was $500,000. But the architect in question drew plans which would have required a construction cost of $3,300,000 and the plans were approved by the president of the borough in which the project

(Continued on page 118)

"Owners are Satisfied"

. . . with Petro oil-heat economies

Of the architectural firm of Nemeny & Geller, Mr. George Nemeny has been identified with many types of buildings, including homes, row houses, stores, apartments, institutions and industrial construction. His more recent projects include Garden Apartments, Syracuse, N. Y.; Cooperative Clinic, Newark, N. J.; and Al & Dick's Steak House, New York, N. Y. Based on his wide experience, Mr. Nemeny comments on Petro Oil Heating Systems as follows:

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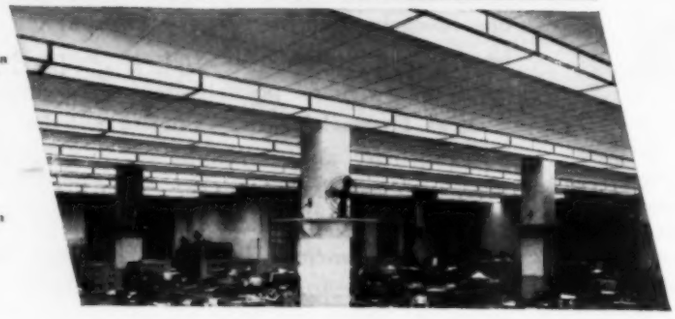

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It's the Law

(Continued from page 116)

was to be constructed. The court, in denying the architect recovery for compensation for services rendered, held that the borough president, as well as the architect, was bound by the terms of the contract; and that the borough president could not waive these provisions even though the architect insisted that the public building, for the purpose for which it was to be used, could not have been built for the sum appropriated. Their expectation that further appropriations would be forthcoming was not legally justified. The court in this respect stated:

"It is argued that a public building, for the purpose that this was to be used, could not have been built for the sum appropriated, and, therefore, the parties were justified in believing that further sums would be appropriated. The difficulty with this argument is that we are required to prophesy the future action of the board of estimate or to exclude entirely the words referring to the appropriation. The contract may have been a foolish one for the parties to have made. We, however, are not required to make another one for them, but to interpret the contract they have made according to the language used by them."

●

Although loss of compensation for services rendered is of serious consequence to the architect for underestimating the cost of a proposed construction, a suit for damages instituted by the owner may have even more dire effect. In the same manner as a doctor or lawyer, an architect may be held responsible for any damages suffered by his employer resulting from malpractice on the part of the architect. If the architect fraudulently or negligently underestimates the cost of a structure to be built and in reliance upon such estimate the owner suffers damage, the owner may seek to compensate himself for such damage by legal action against the architect.

One of the leading cases of this type was litigated in Texas, *Capitol Hotel Co., Inc. v. Rittenberry.* The architect and the owner in that case entered into a contract by the terms of which the architect agreed to furnish sketches, drawings, specifications; to superintend the work; and to audit all accounts in the construction of the hotel. The owner contended that the architect held himself out as proficient and experienced and having the ability to estimate the cost of buildings. The owner had informed the architect that he was proceeding in the construction of the hotel in reliance upon the architect's estimate of cost. The architect had estimated such cost at $340,000 and the owner had arranged to borrow that sum for construction.

(Continued on page 120)

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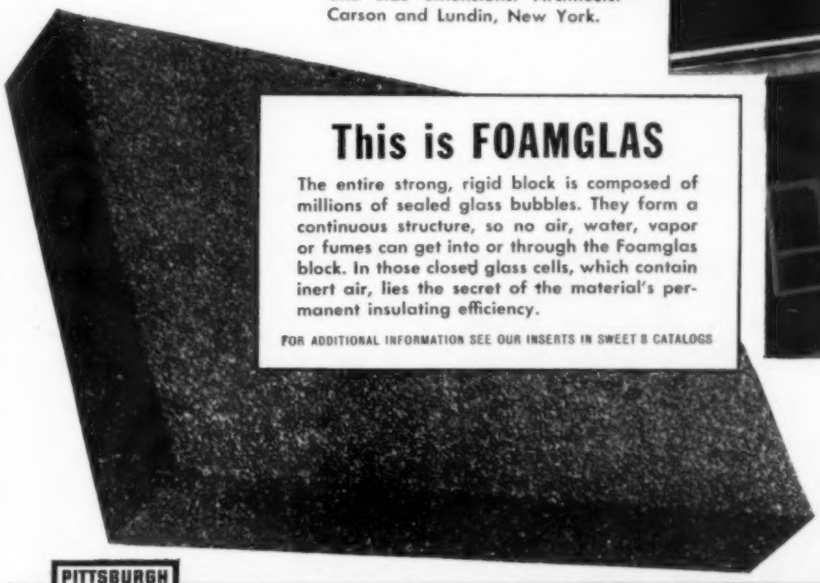

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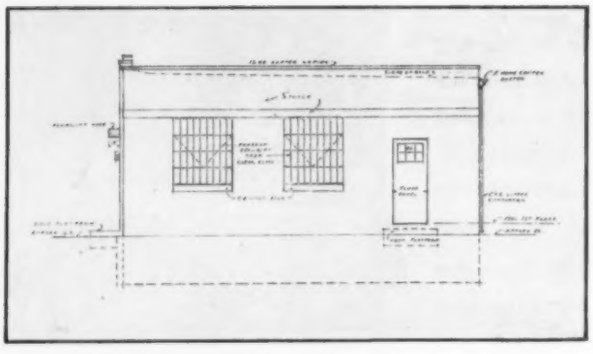

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TRACING CLOTHS
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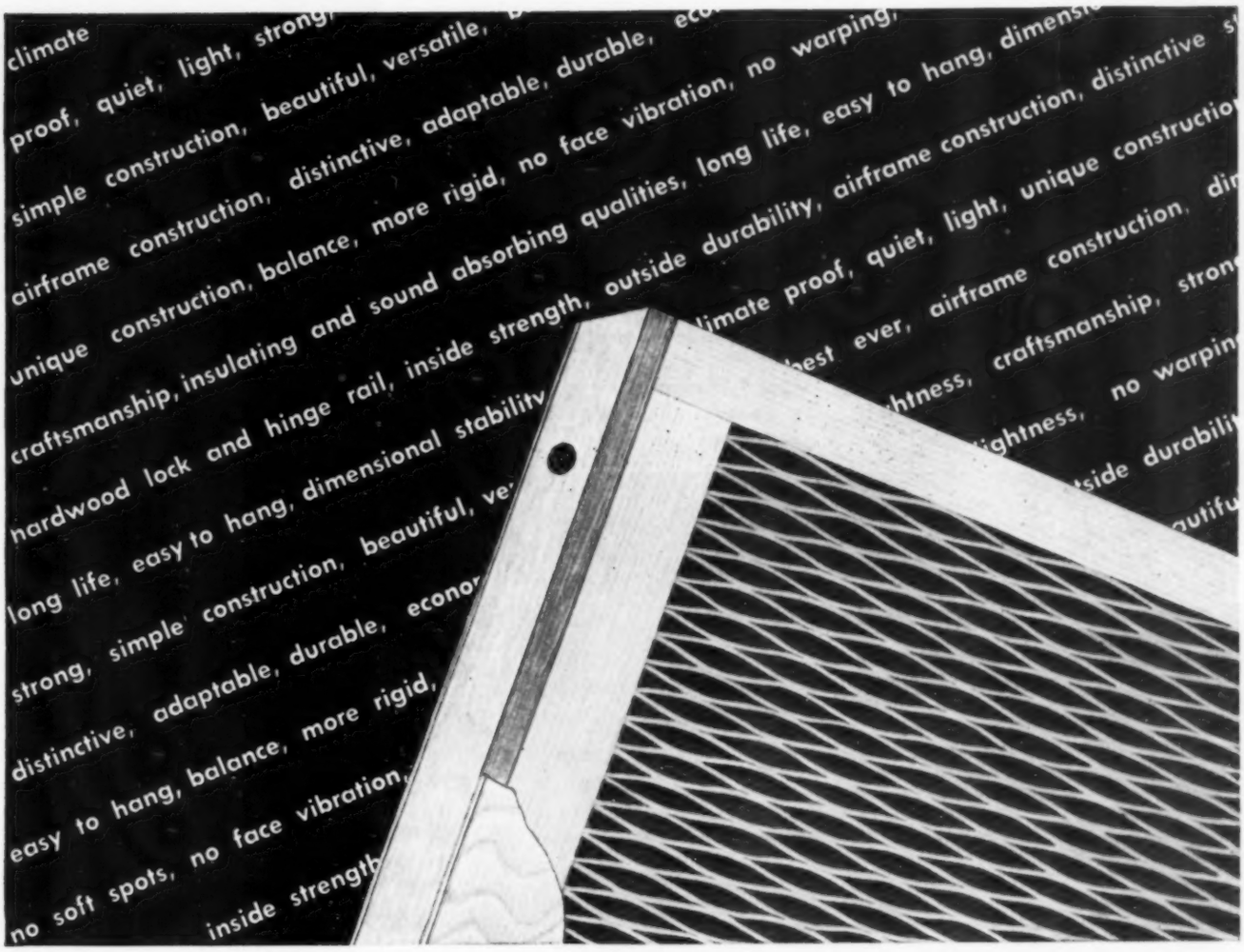
It's the Law

(Continued from page 118)

The hotel in question was to have 150 to 160 guest rooms and the owner took the position that a reasonable return could be obtained on this investment only if the cost per guest room approximated $2,000. The actual cost of the material and labor for the hotel amounted to approximately $500,000 and was substantially greater than the estimated cost. The Texas Court held that if the owner could substantiate his contentions, he was entitled to recover his damages from the architect.

The measure of damages for negligent underestimation of costs is not uniform throughout the states. In the *Capitol Hotel Co., Inc.* case, the owner had sought to recover the difference between the cost of the building and the architect's estimated cost. This amounted to approximately $160,000. The Court, however, held that the intrinsic value of the building in question had been enhanced by the expenditure of a greater sum than the estimated cost and therefore to permit the owner to recover this difference would afford him a greater relief than that to which he was entitled. The proper measure of damages as set forth by this Court would be based upon a recovery that would give the owner a return on his investment equal to the return that he would have obtained if the actual cost of the building had been no greater than the estimated cost. There have been other legal determinations that have awarded damages based upon the difference between the actual and estimated cost of construction. However, in these instances there have been, in the damages, elements of fraud involved.

Loss of compensation or a legal suit for damages or both may be an architect's "reward" for misjudging the cost of a proposed structure for which he is engaged to draw plans. With a recent history of rising material and labor costs, estimates of cost are particularly hazardous. The architect must protect himself insofar as it is practicably possible. One such method would be to incorporate a specific provision in the contract of employment (more effective than provided in the standard A.I.A. form) that would prevent a disgruntled client from seizing on an early estimate as the basis of a law suit. A more practical solution, however, would be for the architect to be as cautious as possible in giving estimates—to steel himself against underestimating "because construction costs are ridiculously high and should come down." Tell the client the sad news early! It may turn out to be an expensive mistake if you do not. If only for your peace of mind, make certain that your agreement covers you against litigious clients who find the project cost more than they anticipated—not an unusual situation today.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airframe construction, distinctive, adaptable, durable,
unique construction, balance, more rigid, no face vibration, no warping,
craftsmanship, insulating and sound absorbing qualities, long life, easy to hang,
hardwood lock and hinge rail, inside strength, outside durability, airframe construction,
long life, easy to hang, dimensional stability
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distinctive, adaptable, durable,
easy to hang, balance, more rigid,
no soft spots, no face vibration,
inside strength

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APPOINTMENTS

Appointment of CECIL C. BRIGGS to the position of visiting professor of architecture at the University of Illinois on a half-time basis has been announced.

LIONEL T. CHADWICK has been appointed assistant professor of architecture, University of Florida School of Architecture.

The College of Architecture and Design, University of Michigan, has announced the appointment of JERROLD LOEBL, NORMAN J. SCHLOSSMAN, and RICHARD M. BENNETT (Loebl, Schlossman & Bennett, architects, Chicago) and K. LONBERG-HOLM, director of research, (F. W. Dodge Corp., New York) as visiting critics in senior design for the current semester.

Announcement has been made of the appointment of ROBERT ANDERSON (Ketchum, Giná & Sharp, New York) to the architectural staff, Cooper Union Art School.

O. J. BAKER, at present director of low-cost housing research, Louisiana State University, is to head the university's new department of architectural engineering commencing September 1949.

MICHAEL ROSENAUER has been appointed visiting professor of interior decoration, Department of Fine Arts, University of Pennsylvania, for the year 1948-49.

MICHAEL CZAJA, former associate professor of architecture, State College of Washington, has been appointed lecturer at the School of Architecture, University of California.

FELLOWSHIPS

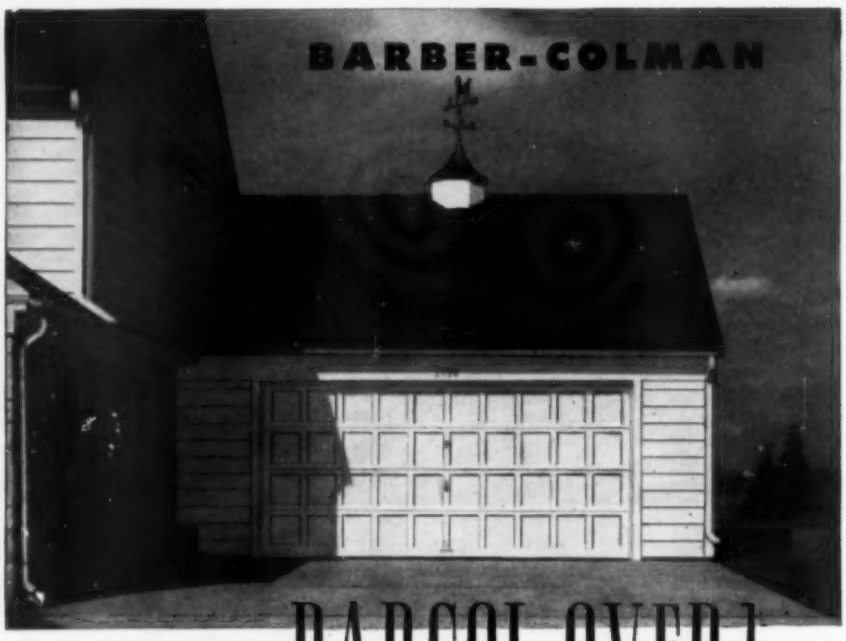
THE LOWELL M. PALMER FELLOWSHIP IN ARCHITECTURE for the advanced study of architecture at Princeton University, which is open to applicants who hold a Bachelor's degree and are 26 years of age or less, has been announced. The Palmer Fellow, who will receive a stipend of $700 during his year of residence, is exempt from tuition and entitled to all privileges of a Fellow at the University. Application blanks, which must be received not later than March 25, 1949, may be obtained by addressing the Secretary, School of Architecture, Princeton University, Princeton, N. J.

ILLINOIS INSTITUTE OF TECHNOLOGY has announced that applications for fellowships, scholarships, and assistantships for graduate study, research, and teaching will be accepted until March 15, 1949. Applications should be addressed to Examiner of Credentials, Graduate School, Illinois Institute of Technology, Technology Center, Chicago 16, Ill.

HONOR SOCIETY

TAU SIGMA DELTA, national honor fraternity, which has 1600 members in the profession of architecture and allied arts, has been admitted to the Association of College Honor Societies.

(Continued on page 124)



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Notices

(Continued from page 122)

EXAMINATION

THE SAN FRANCISCO CIVIL SERVICE COMMISSION announces a nation-wide examination for architects which will be administered at convenient places throughout the U. S. Further information may be obtained by writing San Francisco Civil Service Commission, Room 151, City Hall.

STUDYTOUR

A STUDYTOUR TO SELECTED URBAN AREAS IN LATIN AMERICA, sponsored by Planning and Housing Division of the School of Architecture, Columbia University, will be conducted from June 20 —August 27. Complete information may be obtained from Prof. J. Marshall Miller, 504 Avery, Columbia University, New York 27, N. Y.

CONVENTION

THE AMERICAN CONCRETE INSTITUTE will hold its 45th Annual Convention at the Hotel Statler, New York City, February 22-25, 1949.

EXPOSITIONS

THE THIRD INTERNATIONAL LIGHTING EXPOSITION AND CONFERENCE, sponsored by National Electrical Manufacturers Association, will be held at the Stevens Hotel, Chicago, Ill., from March 29—April 1.

THE FIFTH ANNUAL CONVENTION AND EXPOSITION of the National Association of Home Builders, where 139 leading national firms will exhibit, demonstrate, and explain their newest products, will be held at Stevens Hotel, Chicago, Ill., February 20-24.

NEW COLLEGE

UNIVERSITY OF FLORIDA announces formation of a College of Architecture, combining the School of Architecture and Allied Arts with the Department of Art and the Bureau of Architectural and Community Research. William T. Arnett, faculty member since 1929 and director of the School since 1946, has been named dean of the College and director of the Bureau. The new Department of Architecture is headed by John L. R. Grand, faculty member since 1947; and the Department of Art by Hollis H. Holbrook, faculty member since 1938.

(Continued on page 126)

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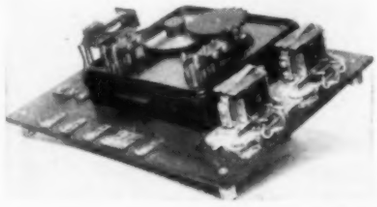

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(92"x80") Series 800 Adlake Aluminum Window frames a view of Oklahoma City in the remodeled building of the Home State Life Insurance Co. Prior windows were of wood. New windows are "the talk of the tenants," says Home State Life President.

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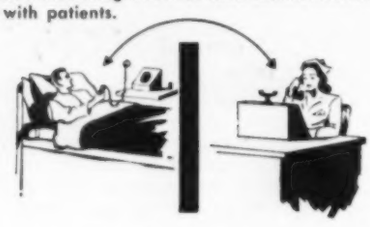

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Notices

(Continued from page 124)

COMPETITION

BROOKLYN CHAPTER, A.I.A. has announced its annual COMPETITION open to all students who have legal residence in the territorial area (Brooklyn, Queens, Nassau, Suffolk) who attend accredited schools of architecture anywhere in the U. S., and draftsmen employed elsewhere but residing in the stated area. Three prizes of $100, $50, $25, each, will be awarded. Details are obtainable from Vito P. Battista, Chairman, Committee on Education, Brooklyn Chapter, A.I.A., 26 Court St., Brooklyn, N. Y.

NEW CURRICULUM

THE UNIVERSITY OF OKLAHOMA has announced a program and curriculum leading to the master's degree in regional and city planning. For full information, the Bulletin of the Graduate College is obtainable from University of Oklahoma, Norman, Okla.

NEW ADDRESSES

BAIN-OVERTURF-TURNER & ASSOCIATES, Architects, 908 Seventh Ave., Seattle 4, Wash.

SIGMAN & FARKAS, Consulting Engineers, 150 Broadway, New York 7, N. Y.

DRAGON, SCHMIDTS & HARDMAN, Architects, 1320 University Ave., Berkeley 2, Calif.

GEORGE L. WALLING, Architect, 304 W. 8th St., Austin, Tex.

DOUGLAS MCFARLAND, WALLACE C. BONSALL, Architects, 3923 W. Sixth St., Los Angeles 5, Calif.

ROBERT H. THOMAS, Architect, 3923 W. Sixth St., Los Angeles 5, Calif.

EGGERS & HIGGINS, architects, 1832 "K" St., N. W., Washington, D. C. New York Office, 542 Fifth Ave., remains same.

ERNEST TAMPLIN, architect, 22229 John R., Hazel Park, Mich.

RALPH HAVER, architect, 207 E. Camelback Rd., Phoenix, Ariz.

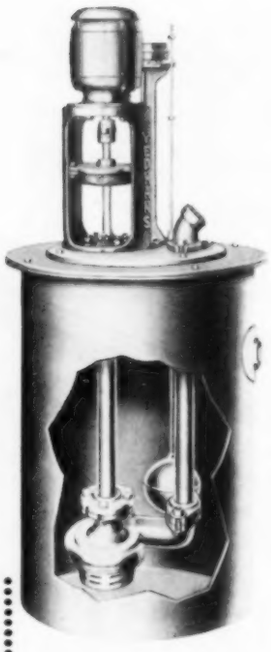
THEODORE W. HEINZERLING, consulting engineer, 141 Broadway, New York 6, N. Y.

GEORGE NELSON, 343 Lexington Ave., New York 16, N. Y.

NEW PRACTICES, PARTNERSHIPS

WALTER L. CHAMBERS, PAUL MORIECE, landscape architects, 33 Church St., Harvard Sq., Cambridge 38, Mass.

(Continued on page 128)



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You can see the sure touch of a master designer in this charming Curtis entrance—Design C-1730. H. Roy Kelley, Architect. Curtis entrances assure lasting value and beauty.

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Notices

(Continued from page 126)

ALEXANDER S. CORRIGILL associated with LAWRENCE GRANT WHITE, JAMES KELLUM SMITH (McKIM, MEAD & WHITE), 101 Park Ave., New York 17, N. Y.

JOHN STEPHEN HOLLOWAY, WILLIAM MOORE WEBER, RALPH BERNARD REEVES, JR. (HOLLOWAY, WEBER & REEVES, architects), 1916½ Hillsboro St., Raleigh, N. C.

WILLIAM H. HIDELL, JR., HOWARD G. DECKER, JR. (HIDELL & DECKER, architects), 2715 Oak Lawn, Dallas 4, Tex.

LOUIS P. ZALENKA, product designer and developer, 3707 Brighton Rd., Pittsburgh 12, Pa.

DAVID G. MURRAY, architect, associated with A. M. ATKINSON, architect-engineer, (ATKINSON & MURRAY), Thompson Bldg., Tulsa 3, Okla.

ROBERT GUSTAV GUSTAFSON, architect, 15½ E. Front St., Monroe, Mich.

PAUL JAMES HUSTON, architect, 543 Bryant St., Palo Alto, Calif.

ALFRED H. ABERNETHY, architect, E. Market and Legion Sts., Johnson City, Tenn.

THEODORE B. WELLS, MYRON DENBROOK (WELLS & DENBROOK), architects, Northern Hotel, Grand Forks, N. D.

FINCH & BARNES, 7 Piedmont Life Bldg., 1222 Peachtree St., N. E., Atlanta, Ga.

JAMES C. GARDINER, ROBERT B. PRICE (GARDINER & PRICE, Architects), 200 Broadway Theater Bldg., Tacoma 3, Wash.

PAUL R. MacALISTER (Interior decoration, industrial design), 1226 N. Dearborn Parkway, Chicago 10, Ill.

ROBERT F. FISHER, architect, 957 E. "D" St., Grants Pass, Ore.

JAN STREATE, home furnishing editor, *Miami Daily News*, has become associated with George Farkas, Inc., 41st St., Miami Beach, Fla.

NEMBHARD N. CULIN, DONALD DODGE, formerly associates, now partners, FREDERICK G. FROST, ARCHITECTS, 144 E. 30th St., New York 16, N. Y.

ABRAHAM LEVY, EDWIN H. SILVERMAN, architects, partnership dissolved. Individual offices, 1411 Walnut St., Philadelphia 2, Pa.

MAX J. WOLFSON, architect, 3845 Alta Vista Terrace, Chicago 13, Ill.

E. B. VAN KEUREN, CHAS. F. DAVIS, JR., PAUL M. SPEAKE, J. MARION THRASHER, architects and engineers, (VAN KEUREN, DAVIS & Co.), American Life Bldg., Birmingham, Ala.

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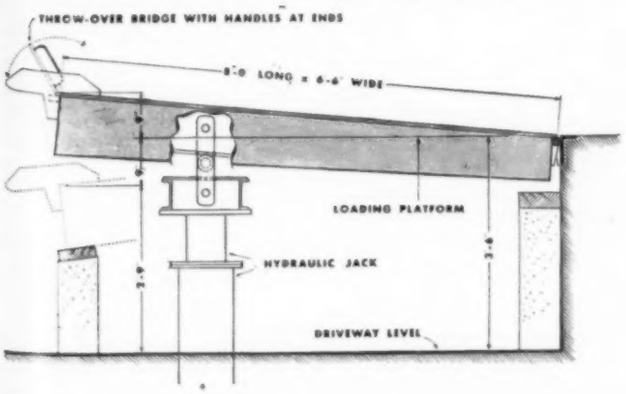

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YOU WILL NOTICE THAT ENTRY BLANKS FOR THE PROGRESSIVE ARCHITECTURE AWARDS ARE NOW READY. We urge all of you to submit your best work; conditions are simple; another outstanding jury will make its selections of work done last year which best indicates sound progress in design; the winners will be widely publicized. Incidentally, an exhibit based on last year's Awards has been touring the country since then and is now on its way to Europe. If any schools, groups, A.I.A. Chapters, or museums want to be put on the itinerary of a similar exhibit of this year's winners, please let me know soon.

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THE HOUSTON CONVENTION OF THE A.I.A. in March promises to be a very worthwhile and well-attended meeting. With Frank Lloyd Wright receiving the Gold Medal, with an interesting contest for the presidency and perhaps for other offices, with a good program of seminar subjects scheduled, and with a continuation of the fruitful good-fellowship which has been developing at these meetings, a trip to Texas should be on the agenda for many architects.

●

I'VE JUST BEEN READING ABOUT HIGHWAYS. The influence of the paved road on our national life can't be overestimated. It has certainly affected the growth and planning of both urban and rural areas, and the fact of easy travel has sharply changed family and community habits. Interesting fact for the month: the modern paved highway didn't develop as a result of the automobile, but of the bicycle. The League of American Wheelmen was the powerful lobbying organization.

●

EVERY ONCE IN AWHILE, someone says to us, "Why don't you publish a really critical journal? Why can't we have real, no-punches-pulled architectural criticism?" The trite answer is that architects won't allow it—they might even sue. At which our critic of criticism snorts and thinks that's just an excuse, and not really true.

We know that the moves toward criticism we have instituted are sometimes mild and polite. But even so, we skirt trouble. Recently a veiled reference was made to a job, not identified, which was criticized for allegedly allowing formalism to overweigh function. The architect responded at once, advising us that counsel had told him the comment "may establish definitely supported cause for civil libel action." He kindly added, however, that he didn't want to harm the publication, and therefore rested with an admonition.

This architect objected primarily because the comments were "opinion" on the part of the writer. That I must admit—and yet isn't all criticism personal opinion, as competent as the critic can make it by experience, study, and the development of his critical faculties? Critical judgment can be based on accepted criteria and standards, and yet conclusions can vary widely. Also there may be disagreement about the criteria—in this case the architect protests that the criticism flows from "false premises." One competent critic will review a novel favorably; another will tear it to pieces. In architecture we can't, so far, do much beyond pointing out the good things about a job, and ignoring or mildly questioning the bad. I'm sorry. I'm sorry we stepped on this architect's toes, and I apologize. I'm also sorry we're not permitted to step on toes—there are so many of them around in the wrong shoes.

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I OFTEN WISH P/A COULD MOVE its editorial offices to another part of the country, where the climate's better and the grass greener. But then a string of visitors shows up, and I realize again that New York is a central point through which pass many architects whom we wouldn't otherwise see. In one week recently, we had calls from Gabriel Guevrekian, the French architect, who is now teaching at Alabama Poly.; from Henry Kamphoeffner and Mrs. K., of North Carolina; from Igor, Irene, and Serge Polevitzky, of Miami; from Tashmiro Acosta, the Argentinian; from Henry Shotwell of Minneapolis; and Al Aydelott of Memphis. They all had interesting news and gossip of progress in architecture. I guess we'll have to be content with staying here and just visiting the greener pastures from time to time.

SPEAKING OF PASTURES, an architect from Kansas tells us of a growing practice in a region where the towns are small and scarce. His office is in a place where, he says, nothing ever happens. "The last excitement was some years ago, and we'll never forget it," he told us, and then launched into this improbable story.

In his town, he said, there are just a few buildings at a railroad intersection. A store, several houses, and, where the north-south tracks cross the east-west tracks, a signal tower on one corner and a town park on another. All day the signalman sits in his tower, and all day this architect's elderly aunt sits in the park and reads Anthony Trollop. The only trains that pass through are an east-bound express at 12:55 and a south-bound express at 1:00 o'clock.

One day the signalman got a message that the train headed east was five minutes late. He thought a moment, then climbed down the stairs and walked over to the old lady sitting in the park.

"You've been sitting here every day for years, haven't you, Miss Kate?" he asked.

"Yes I have, young man," she replied.

"Never anything happens, does it? —No excitement in this town," he prodded.

"That's right — nothing much ever happens," she agreed.

"Well," the trainman said, stretching, "You just sit here a few minutes. You're going to have a close-up view of one of the damndest train wrecks that ever took place."

When we asked this architect what really happened and how it all came out, he began talking about concrete specifications.

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THE N. Y. STATE ASSOCIATION OF ARCHITECTS HELD A GOOD CONVENTION RECENTLY IN ALBANY. Several seminars were worth while, including one on "The Architect's Training." Some of the older architects present deplored the fact that the graduating student of today is "too rigid" in his thinking, "too sure that he is right and everyone else is wrong." Hasn't that always been the case? Isn't it a part of youthful enthusiasm and a result of newly acquired knowledge to be sure that the world up to this point has been backward and stodgy? I don't think any of us can look back honestly on the time when we left school without remembering that feeling.

Thomas H. Creighton